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AGA American Gas Association

Gas Facts

1984 • A Statistical Record of the Gas Utility Industry

Department of Statistics

gas facts

1984 DATA

■ ENERGY RESERVES ■ NATURAL GAS SUPPLY

■ UNDERGROUND STORAGE

■ DISTRIBUTION AND TRANSMISSION

■ ENERGY CONSUMPTION

■ CUSTOMERS ■ SALES ■ REVENUES

■ PRICES ■ APPLIANCE AND HOUSING DATA

■ FINANCE ■ PERSONNEL DATA

■ GLOSSARY ■ INDEX

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GAS FACTS
1984 DATA

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AMERICAN GAS ASSOCIATION

The American Gas Association assumed its present status as the gas utility industry trade association in 1927, after a merger of two predecessor organizations. It renders assistance to the gas utility industry so that the industry may serve its customers more efficiently. Dependence is placed upon the voluntary cooperation of gas companies and established committees composed of representatives from these companies.

The Association recognizes the need for factual information regarding the gas industry for the use, not only of industry organizations, but also interested outside publics. Its statistical efforts are a vital part of this function, and the publication of Gas Facts is one result of these efforts. The statistical activities of A.G.A. are performed by the Department of Statistics with guidance by the Statistics and Related Economics Committee.

1985–86

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INTRODUCTION

GENERAL

This publication contains detailed statistics for 1984 and summary statistics for 1960–1983 for the gas utility industry which by definition, consists of the companies engaged in natural gas distribution and transmission. The publication also contains relevant data on the gas producing segment of the industry and key statistics on other energy industries.

Production data of the gas industry, and pertinent other energy industry data, are also included. Gas volumes are expressed in millions of cubic feet (at 14.73 psia and 60°F unless otherwise noted) and in British thermal units (Btu) to permit direct comparison with other energy data. A conversion table is included as Appendix B.

Appendix C contains a sample listing of gas utility companies according to their classification as distribution, transmission, integrated, or in some cases, combination companies. These classifications are defined in the glossary, Appendix A. Appendix D contains consumption data gathered by the Gas Requirements Committee. Throughout the publication totals may not add due to independent rounding.

The user should be aware that there has developed a sizeable transportation market which directly affects gas utility sales quantities. Although total pipeline throughout may remain the same, as transportation volumes to end-users increase, gas utility sales quantities to end-users will decrease.

Data presented in *Gas Facts,* broken down by company type, are not necessarily comparable from year to year. Acquisitions, mergers and corporate reorganizations continue to cause the number of companies in any given category to vary from year to year. Some of these changes are sizeable and can cause a dramatic shift in the data reported for a specific category from year to year.

SOURCES OF INFORMATION

Most of the information contained in this volume is developed from data contained in the Uniform Statistical Report, a detailed information form prepared annually by both electric and gas utility companies. Information is also derived from reports filed with regulatory commissions, from financial publications, and from statistical reports prepared by government and private agencies. For 1984, the gas utility companies participating in the Uniform Statistical Report survey represented 97 percent of total gas utility industry sales. Data for non-reporting companies, whose sales represent the remaining 3 percent, were estimated based on recent historical experience.

Employee accident data were taken from the A.G.A. *Disabling Injury Experience of the Gas Utility Industry* report. Estimates of proved reserves of natural gas, natural gas liquids and petroleum were taken from the U.S. Department of Energy report *U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves,* 1984 annual report. Since this time series only begins in

1977, A.G.A., API and CPA data on natural gas reserves, 1960–1979, are presented. Statistics on underground storage operations were developed by the A.G.A. Committee on Underground Storage. Data for gas spaceheating customers were taken from the A.G.A. *Gas Househeating Survey.* Data on new security issues, as well as related cost and yield data, were derived from various financial publications, supplemented by data provided in the Uniform Statistical Report.

ACKNOWLEDGEMENTS

Our thanks go to those companies participating in the Uniform Statistical Report information gathering effort. Their cooperation and support are the essential elements which have made this publication a primary source of gas utility industry data, and an important industry reference. The cooperation of the public and governmental agencies credited in tables is also greatly appreciated.

Credit also goes to Senior Energy Statistician Carl Pascale, Energy Statisticians Ellen Hahn and Carole Williams-Hopkins and Summer Intern Karen Olsen. Also contributing to the effort were the A.G.A. Computer Services and Publications/Graphic Services Departments; Bob Kalisch—Director, Gas Supply and Statistics; and Patrick Curley—Manager, Statistical Services.

SECTION 1
1984 IN REVIEW

The natural gas supply situation continued to grow in strength in 1984. New natural gas discoveries in the lower-48 states were up to 18.1 percent over 1983 and new field discoveries, a subset of total discoveries, were up 61.1 percent.

Lower-48 state reserves additions were 82.4 percent of gas production in 1984 so that total reserves declined to 197 Tcf. However, reserves additions for the lower-48 states have averaged 96.1 percent of production from 1981–1984. Gas well completions, as reported by API, were 15,705, up slightly from 1983.

Distribution and transmission facilities increased in 1984 to 1,102.2 thousand miles of distribution main and pipeline, while storage capacity rose to almost 7.8 Tcf. Thus the gas utility industry's deliverability capacity continues to grow consistent with the steady growth in customers. At year-end 1984 there were 49,324,800 gas utility customers reported.

1984 consumption of total energy in the United States increased 4.5% from 1983 with natural gas consumption increasing 3.0%.

Gas utility industry sales rose 2.4% in 1984 to 13,161.7 trillion Btus. Residential and commercial sales increased 4.0% and 4.3%, respectively, from 1983 levels, while industrial sales increased 0.4%.

Natural gas prices stabilized in 1984 and marked the beginning of a pricing phase that suggests price stability for future years.

TABLE 1-1
COMPARISON OF GAS UTILITY INDUSTRY CUSTOMERS, SALES, AND REVENUES BY CLASS OF SERVICE, 1983 AND 1984

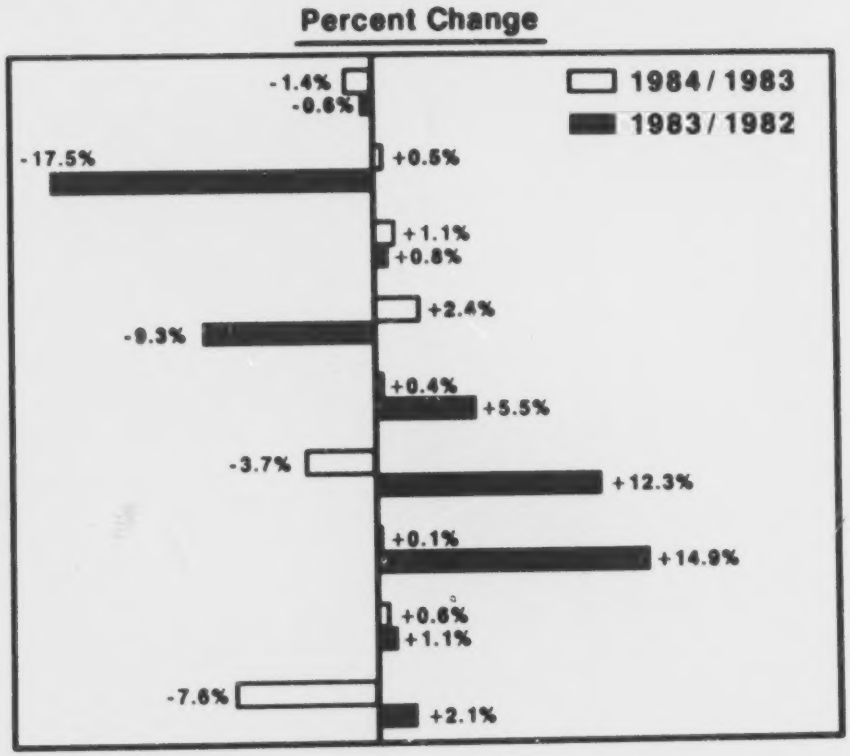
	1983	1984	Percentage Change
CUSTOMERS—TOTAL[a]	**48,799,200**	**49,324,800**	**+1.1**
Residential	44,893,800	45,367,000	+1.1
Commercial	3,676,300	3,730,300	+1.5
Industrial	182,200	180,200	−1.1
Other	46,800	47,300	+1.1
SALES—TOTAL[b]	**12,857,500**	**13,161,700**	**+2.4**
Residential	4,449,600	4,628,300	+4.0
Commercial	2,298,200	2,395,900	+4.3
Industrial	5,969,400	5,991,000	+0.4
Other	140,200	146,400	+4.4
REVENUES—TOTAL[c]	**$65,836,669**	**$67,496,020**	**+2.5**
Residential	26,173,122	27,484,712	+5.0
Commercial	12,658,718	13,205,089	+4.3
Industrial	26,314,873	26,093,445	−0.8
Other	689,956	712,774	+3.3

a. Yearly averages.
b. Sales quantities in billions of Btu.
c. Revenues in thousands of dollars.

CHART 1-1

SELECTED GAS INDUSTRY HIGHLIGHTS OF 1984

	1984
Proved Reserves	197.5 Tcf
New Producing Gas Wells	15,705
Customers	49.3 Million
Utility Sales	13.2 Quads
Wellhead Price	$2.63 / Mcf
Resale Price	$3.89 / MMBtu
End Use Price	$5.13 / MMBtu
Miles of Main	1,102,245
Withdrawals from Storage	1.9 Tcf



SECTION 2
ENERGY RESERVES

Prior to 1980, data on reserves of oil, natural gas and gas liquids were taken from *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada,* an annual report published jointly by A.G.A., the American Petroleum Institute (API) and the Canadian Petroleum Association (CPA). The publication of this report was discontinued after the year-end 1979 report was released in June, 1980. Since 1977, however, the Energy Information Administration (EIA) within the Department of Energy has published an annual reserves report. Data listed below and in several of the tables in this section were taken from the EIA series. For years prior to 1980 A.G.A./API/CPA data is also listed for natural gas reserves.

Reserves as of December 31

	1984	% Change 84/83
Natural Gas		
(Billions of cubic feet)		
Total	197,463	− 1.4
% of Non-Associated, estimated	70.6	+ 0.1
% of Associated-Dissolved, estimated	29.4	− 0.3
Underground Storage*	5,349	+ 4.6
Gross Additions	14,409	− 0.8
Production	17,193	+ 8.9
Natural Gas Liquids		
(Millions of barrels)		
Total	7,643	− 3.3
Gross Additions	518	−63.1
Production	776	+ 7.0
Crude Oil		
(Millions of barrels)		
Total	28,446	+ 2.6
Gross Additions	3,748	+29.4
Production	3,037	+ 0.6

*Not included in Total Reserves. Data taken from "The Underground Storage of Gas in the United States and Canada."

TABLE 2-1
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1960-1979[a]

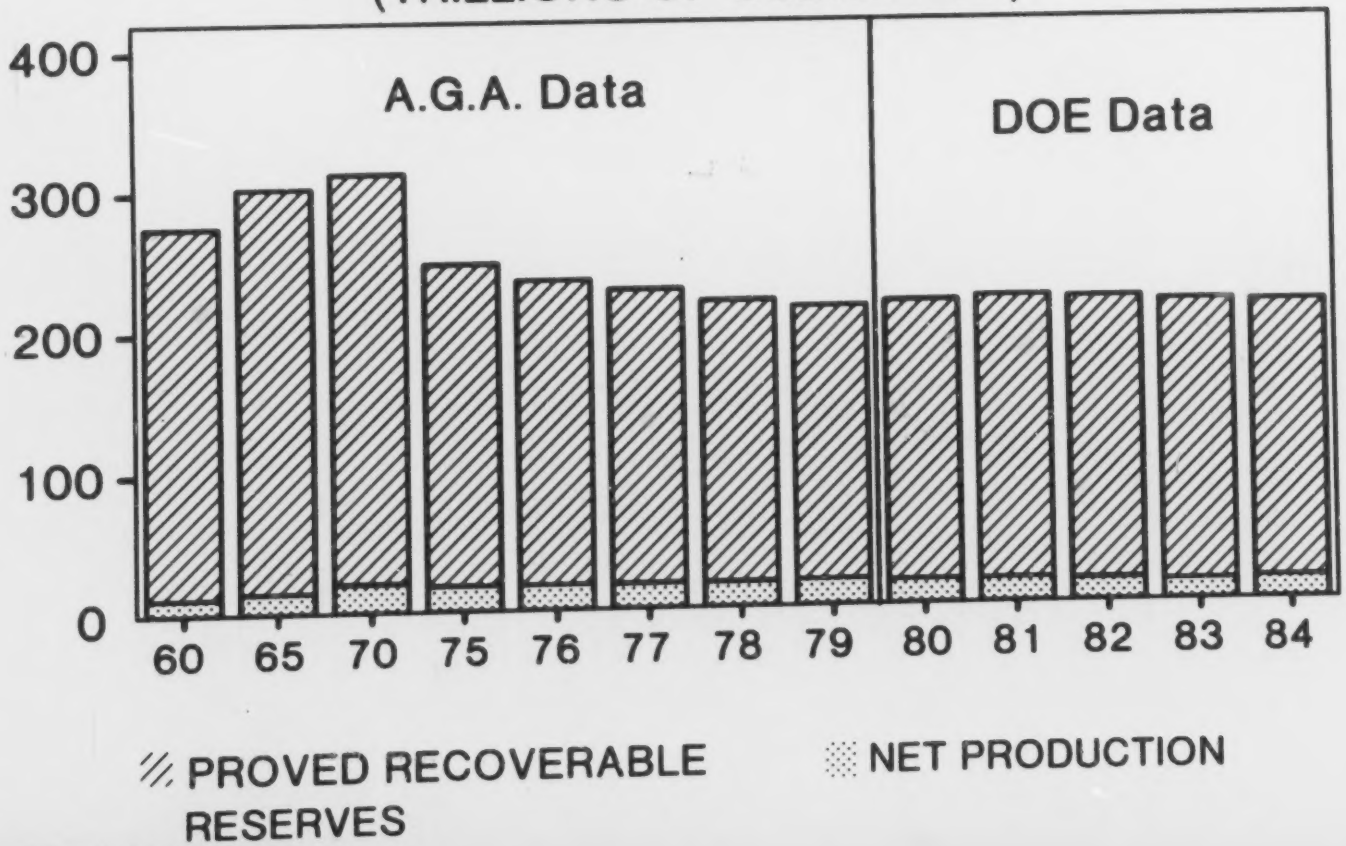
(Millions of Cubic Feet)

	Changes in Reserves during year										
Year	Extensions	Extensions and Revisions	Revisions	New Field Discoveries	Discoveries of New Fields and New Pools in Old Fields	New Reservoir Discoveries	Total of Discoveries, Revisions and Extensions	Net Change in Underground Storage	Preliminary Net Production during Year[c]	Estimated Proved Reserves as of End of Year	Change over Previous Year
1960	—	7,293,015	—	—	6,600,963	—	13,893,978	281,273	13,019,356	262,326,326	1,155,895
1961	—	10,258,692	—	—	6,907,729	—	17,166,421	159,544	13,378,649	266,273,642	3,947,316
1962	—	13,184,794	—	—	6,299,164	—	19,483,958	159,231	13,637,973	272,278,858	6,005,216
1963	—	12,586,733	—	—	5,577,934	—	18,164,667	253,733	14,546,025	276,151,233	3,872,375
1964	—	13,342,838	—	—	6,909,301	—	20,252,139	195,110	15,347,028	281,251,454	5,100,221
1965	—	14,775,570	—	—	6,543,709	—	21,319,279	150,483	16,252,293	286,468,923	5,217,469
1966	9,224,745	—	4,937,962	2,947,329	—	3,110,396	20,220,432	134,523	17,491,073	289,332,805	2,863,882
1967	9,538,584	—	6,570,578	3,170,520	—	2,524,651	21,804,333	151,403	18,380,838	292,907,703	3,574,898
1968	7,758,821	—	3,016,146	1,376,429	—	1,545,612	13,697,008	118,569	19,373,428	287,349,852	(5,557,851)
1969	5,800,489	—	(1,238,261)	1,769,557	—	2,043,219	8,375,004	107,169	20,723,190	275,108,835	(12,241,017)
1970	6,158,168	—	(99,721)	27,770,223[b]	—	3,367,689	37,196,359	402,018	21,960,804	290,746,408	15,637,573
1971	6,374,706	—	(1,227,400)	1,317,574	—	3,360,541	9,825,421	310,301	22,076,512	278,805,618	(11,940,790)
1972	6,153,683	—	(1,077,791)	1,462,539	—	3,096,132	9,634,563	156,563	22,511,898	266,084,846	(12,720,772)
1973	6,177,286	—	(3,474,756)	2,152,151	—	1,970,368	6,825,049	(354,282)	22,605,406	249,950,207	(16,134,639)
1974	5,847,251	—	(1,333,285)	2,013,745	—	2,151,473	8,679,184	(178,424)	21,318,470	237,132,497	(12,817,410)
1975	6,027,433	—	383,449	2,423,382	—	1,649,424	10,483,688	302,561	19,718,570	228,200,176	(8,932,321)
1976	5,337,707	—	(1,197,119)	1,421,013	—	1,993,867	7,555,468	(187,550)	19,542,020	216,026,074	(12,174,102)
1977	6,601,229	—	983,551	2,114,505	—	2,152,639	11,851,924	446,930	19,447,050	208,877,878	(7,148,196)
1978	6,733,441	—	118,436	1,719,938	—	2,014,329	10,586,144	148,733	19,311,048	200,301,707	(8,576,171)
1979	7,113,113	—	2,907,551	2,575,779	—	1,689,504	14,285,947	239,323	19,910,353	194,916,624	(5,385,083)

a. Volumes are calculated at a pressure base of 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes the estimates of proved reserves in the Prudhoe Bay Permo-triassic reservoir discovered in 1968 and not previously included.
c. "Preliminary Net Production" equals estimated gross withdrawals less (1) gas reinjected into producing reservoirs for cycling and pressure maintenance, and (2) natural gas liquids. "Preliminary Net Production" differs from U.S. Bureau of Mines "Marketed Production" in that (1) the sources from which they are derived are different, and (2) "Marketed Production" includes natural gas liquids.
( ): Denotes negative value.
Source: A.G.A., American Petroleum Institute and Canadian Petroleum Association. *Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the United States and Canada as of December 31, 1979.*
Note: Publication of the above mentioned source ceased with the December 31, 1979 edition. See Table 2-2 for EIA information covering 1976-1984.

CHART 2-1

PROVED RECOVERABLE RESERVES & NET PRODUCTION OF NATURAL GAS IN THE UNITED STATES (TRILLIONS OF CUBIC FEET)



REFERENCE: TABLES 2-1, 2-2

TABLE 2-2
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1976–1984

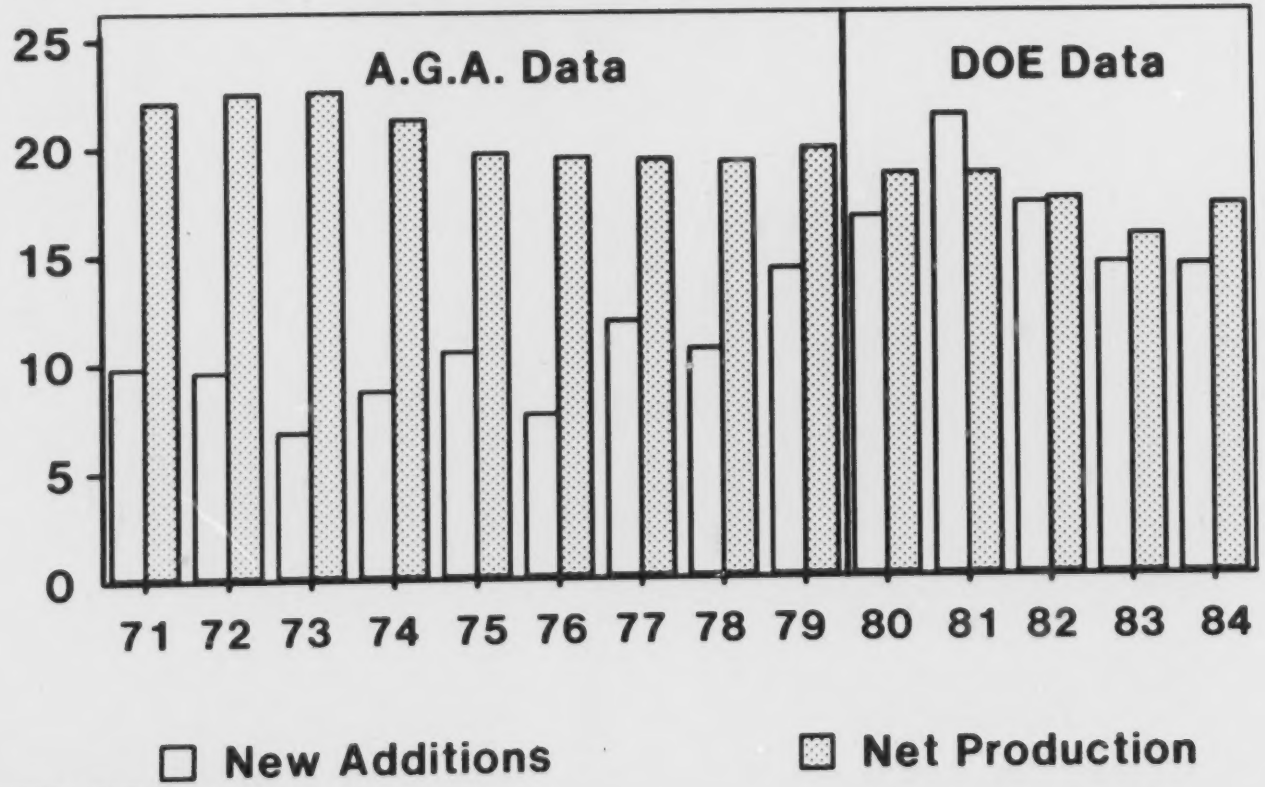
(Billions of Cubic Feet)

	Changes in Reserves During Year									
Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[a] (7)	Production Dry (8)	Proved Reserves[b] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	213,278[c]	—
1977	(20)[d]	13,691	15,296	8,129	3,301	3,173	14,603	18,843	207,413	(5,865)
1978	2,429	14,969	15,994	9,582	4,579	3,860	18,021	18,805	208,033	620
1979	(2,264)	16,410	16,629	8,950	2,566	3,188	14,704	19,257	200,997	(7,036)
1980	1,201	16,972	15,923	9,357	2,577	2,539	14,473	18,699	199,021	(1,976)
1981	1,627	16,412	13,813	10,491	2,998	3,731	17,220	18,737	201,730	2,709
1982	2,378	19,795	19,340	8,349	3,419	2,687	14,455	17,506	201,512	(218)
1983	3,090	17,602	17,617	6,909	2,965	1,574	11,448	15,788	200,247	(1,265)
1984	(2,241)	17,841	14,712	8,299	2,686	2,536	13,521	17,193	197,463	(2,784)

a. Col. 4+Col. 5+Col. 6=Col. 7.
b. Proved reserves= Prior year Col. 9+Col. 1+Col. 2−Col. 3+Col. 7− Col. 8.
c. Based on following year data only.
d. Consists only of reported corrections.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1984 Annual Report.

CHART 2-2

NET PRODUCTION AND NEW ADDITIONS TO GAS RESERVES (TRILLIONS OF CUBIC FEET)



REFERENCE: TABLES 2-1, 2-2

TABLE 2-3
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1984

(Billions of Cubic Feet)

State and Subdivision	Published Proved Reserves 12/31/83	Changes in Reserves During 1984		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**200,247**	**(2,241)**	**17,841**	**14,712**
(2) Alabama Onshore	785	50	189	40
(3) Alaska	34,283	4	907	395
(4) Arkansas	2,069	90	146	167
(5) California	5,781	(3)	385	385
(6) Coastal Region Onshore	381	(68)	46	78
(7) Los Angeles Basin Onshore	107[a]	49	29	5
(8) San Joaquin Basin Onshore	3,819	45	299	275
(9) State & Federal Offshore	1,474	(27)	11	27
(10) Colorado	3,148	(168)	160	152
(11) Florida	49	(3)	31	1
(12) Kansas	9,553	(192)	560	215
(13) Kentucky	554	55	65	29
(14) Louisiana[b]	42,561	239	4,538	4,514
(15) North	2,939	(322)	260	209
(16) South Onshore	11,142	421	996	1,635
(17) South Offshore[b]	28,480	140	3,282	2,670
(18) Michigan	1,219[a]	(106)	184	105
(19) Mississippi	1,596	7	176	193
(20) Montana	896	(74)	54	77
(21) New Mexico	11,676	(78)	781	517
(22) East	3,230	(54)	551	300
(23) West	8,446	(24)	230	217
(24) New York	295	96	18	36
(25) North Dakota	600	21	61	96
(26) Ohio	2,030[a]	(363)	26	56
(27) Oklahoma	16,211	(337)	2,245	1,611
(28) Pennsylvania	1,882[a]	(551)	277	75
(29) Texas	50,052	(748)	6,074	4,935
(30) District 1	1,087	(206)	90	119
(31) District 2 Onshore	2,534	(38)	291	373
(32) District 3 Onshore	4,680	305	579	508
(33) District 4 Onshore	8,316	(58)	996	1,096
(34) District 5	1,448	(13)	435	116
(35) District 6	4,857	(255)	629	369
(36) District 7B	1,027[a]	(137)	49	50
(37) District 7C	2,568	119	409	178
(38) District 8	8,156	(418)	642	687
(39) District 8A	966	(73)	133	41
(40) District 9	932	13	73	95
(41) District 10	5,919	(342)	577	319
(42) State and Federal Offshore	7,562	355	1,171	984
(43) Utah	2,333	(44)	80	257
(44) Virginia	175	(5)	31	15
(45) West Virginia	2,194[a]	(84)	284	198
(46) Wyoming	10,227	(37)	553	634
(47) Miscellaneous[c]	78	(10)	16	9

a. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.
b. Includes offshore Alabama.
c. Includes Arizona, Illinois, Indiana, Maryland, Nebraska, Oregon, South Dakota, and Tennessee.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1984 Annual Report.

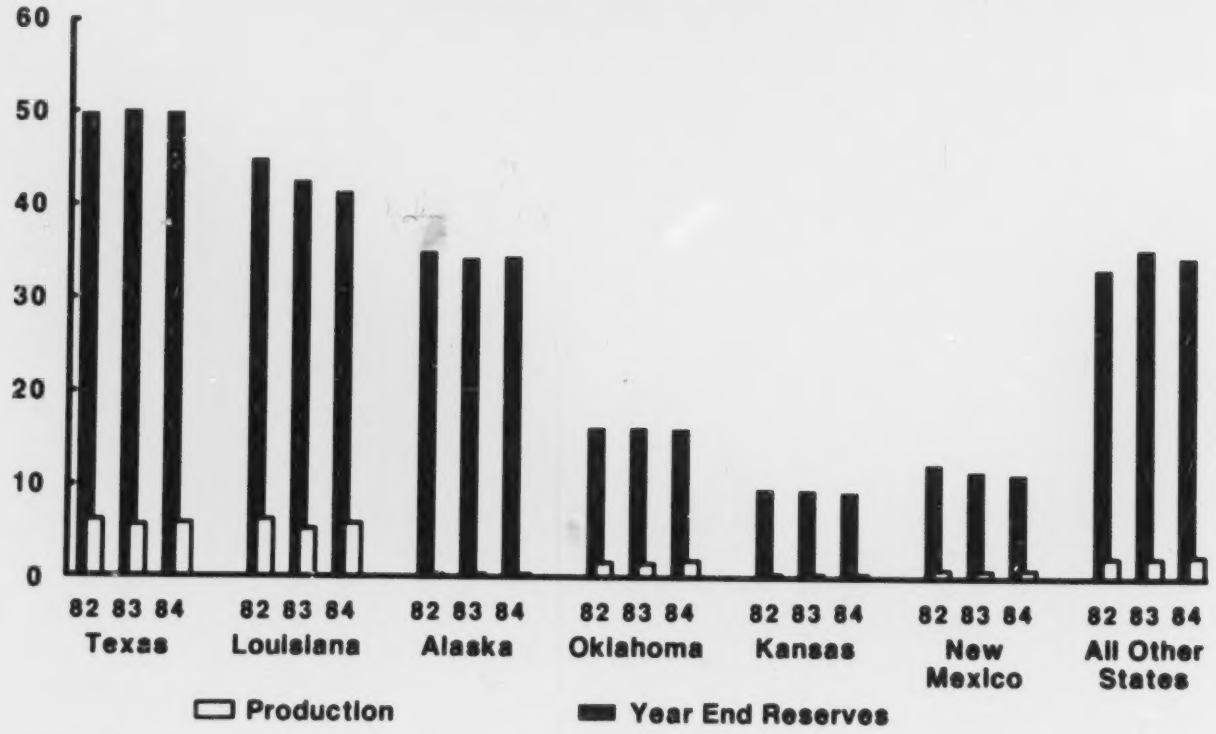
TABLE 2-3 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1984

(Billions of Cubic Feet)

Changes in Reserves During 1984					
Extensions	New Field Discoveries	New Reservoir Discoveries In Old Fields	Production	Proved Reserves 12/31/84	
8,299	**2,536**	**2,686**	**17,193**	**197,463**	(1)
32	22	4	81	961	(2)
1	0	0	324	34,476	(3)
261	2	14	188	2,227	(4)
144	35	40	443	5,554	(5)
12	0	0	28	265	(6)
2	0	0	26	156	(7)
106	19	16	342	3,684	(8)
24	16	24	47	1,448	(9)
113	12	1	171	2,943[a]	(10)
0	0	0	11	65	(11)
115	7	6	447	9,387	(12)
22	0	0	54	613	(13)
1,825	1,422	1,005	5,677	41,399	(14)
163	1	24	362	2,494	(15)
454	30	250	1,327	10,331	(16)
1,208	1,391	731	3,988	28,574	(17)
28	30	0	138	1,112	(18)
49	17	20	181	1,491	(19)
38	2	9	46	802	(20)
309	24	25	856	11,364	(21)
169	23	17	439	3,197	(22)
140	1	8	417	8,167	(23)
4	0	30	18	389	(24)
28	4	6	58	566	(25)
64	0	9	169	1,541	(26)
1,016	53	327	1,778	16,126	(27)
176	0	0	134	1,575	(28)
3,109	875	1,135	5,679	49,883	(29)
69	6	5	94	838	(30)
149	172	97	320	2,512	(31)
215	37	152	752	4,708	(32)
792	73	567	1,065	8,525	(33)
238	22	24	164	1,874	(34)
226	7	10	402	4,703	(35)
20	1	5	121	794	(36)
198	3	1	254	2,866	(37)
262	8	23	643	7,343	(38)
5	0	0	83	907	(39)
98	4	5	130	900	(40)
183	20	10	587	5,461	(41)
654	522	236	1,064	8,452	(42)
41	3	0	76	2,080	(43)
38	0	0	8	216	(44)
68	1	36	165	2,136	(45)
818	27	12	484	10,482	(46)
0	0	7	7	75	(47)

CHART 2-3

NATURAL GAS STATE RESERVES AND PRODUCTION FOR 1982,1983 AND 1984
(TRILLIONS OF CUBIC FEET)



REFERENCE: TABLE 2-3

TABLE 2-4
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS LIQUIDS IN THE UNITED STATES, 1978–1984

(Millions of Barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1978	—	—	—	—	—	—	—	—	6,772[d]	—
1979	64[e]	677	726	364	97	94	555	727	6,615	(157)
1980	153	743	639	418	79	90	587	731	6,728	113
1981	231	729	643	542	91	131	764	741	7,068	340
1982	299	811	832	375	109	112	596	721	7,221	153
1983	849	847	781	321	99	70	490	725	7,901	680
1984	(123)	866	724	348	96	55	499	776	7,643	(258)

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Based on following year data only.
e. Consists only of reported corrections.

Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves*, 1984 Annual Report.

TABLE 2-5
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1984

(Millions of Barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/83	Changes In Reserves During 1984		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**7,901**	**(123)**	**860**	**724**
(2) Alabama	216	(8)	12	8
(3) Alaska	8	(8)	19	0
(4) Arkansas	11	1	1	1
(5) California	151	(5)	12	11
(6) Coastal Region Onshore	17	0	3	4
(7) Los Angeles Basin Onshore	6	(1)	1	0
(8) San Joaquin Basin Onshore	117	(8)	8	7
(9) State & Federal Offshore	11	4	0	0
(10) Colorado	183	(26)	9	8
(11) Florida	11	1	8	0
(12) Kansas	443	(20)	26	10
(13) Kentucky	31	(8)	3	1
(14) Louisiana	1,332	(68)	153	169
(15) North	74	(12)	6	7
(16) South Onshore	527	(37)	55	66
(17) South Offshore	731	(19)	92	96
(18) Michigan	105	(23)	14	8
(19) Mississippi	19	(1)	2	3
(20) Montana	19	0	1	2
(21) New Mexico	551	(30)	48	31
(22) East	232	(11)	38	21
(23) West	319	(19)	10	10
(24) North Dakota	69	10	8	11
(25) Oklahoma	829	(69)	114	87
(26) Texas	3,038	43	373	292
(27) District 1	43	(1)	5	6
(28) District 2 Onshore	99	4	13	17
(29) District 3 Onshore	285	(1)	36	34
(30) District 4 Onshore	292	(10)	40	41
(31) District 5	73	(15)	20	10
(32) District 6	342	(45)	42	29
(33) District 7B	133	(15)	6	6
(34) District 7C	219	4	33	17
(35) District 8	681	46	61	64
(36) District 8A	262	16	41	13
(37) District 9	121	5	10	13
(38) District 10	413	36	48	27
(39) State Offshore	11	3	2	4
(40) Federal Offshore	64	16	16	11
(41) Utah and Wyoming	789	100	52	75
(42) West Virginia	91	(11)	10	7
(43) Miscellaneous[b]	5	(1)	1	0

a. Barrel = 42 U.S. gallons.
b. Includes Illinois, Indiana, Nebraska, New York, Ohio, Pennsylvania, and Tennessee.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1984 Annual Report.

TABLE 2–5 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1984

(Millions of Barrels)[a]

Changes in Reserves During 1984					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/84	
348	**55**	**96**	**776**	**7,643**	(1)
3	1	0	16	200	(2)
0	0	0	0	19	(3)
1	0	0	1	12	(4)
4	1	1	12	141	(5)
1	0	0	2	15	(6)
0	0	0	1	5	(7)
3	1	0	9	105	(8)
0	0	1	0	16	(9)
5	1	0	9	155	(10)
0	0	0	3	17	(11)
5	0	0	20	424	(12)
1	0	0	2	24	(13)
59	22	25	166	1,188	(14)
5	0	0	9	57	(15)
28	3	8	64	454	(16)
26	19	17	93	677	(17)
2	2	3	11	84	(18)
0	0	0	2	15	(19)
1	0	0	1	18	(20)
17	2	1	47	511	(21)
12	2	1	32	221	(22)
5	0	0	15	290	(23)
3	0	1	7	73	(24)
50	2	16	86	769	(25)
153	22	48	337	3,048	(26)
3	0	0	5	39	(27)
6	8	4	14	103	(28)
13	3	11	43	270	(29)
29	3	18	36	295	(30)
9	1	2	6	74	(31)
14	0	1	27	298	(32)
3	0	1	16	106	(33)
15	0	0	21	233	(34)
25	1	2	61	691	(35)
2	0	0	26	282	(36)
12	0	1	17	119	(37)
15	2	1	48	440	(38)
0	0	0	2	10	(39)
7	4	7	15	88	(40)
42	2	0	50	860	(41)
2	0	1	6	80	(42)
0	0	0	0	5	(43)

TABLE 2-6
TOTAL ESTIMATED REMAINING IDENTIFIED RESERVES OF COAL AND LIGNITE BY STATE, AS OF JANUARY 1, 1980[a]

(Billions of Short Tons)

State	Total Coal and Lignite	Coal			
		Anthracite and Semianthracite	Subbituminous	Bituminous	Lignite
United States	**472.7**	**7.3**	**182.0**	**239.3**	**44.1**
Alabama	5.0			3.9	1.1
Alaska	6.1		5.4	.7	b
Arizona	.4			.4	
Arkansas	.4	.1		.3	b
Colorado	17.3	b	4.0	9.1	4.2
Georgia	b			b	
Idaho	b			b	
Illinois	67.6			67.6	
Indiana	10.6			10.6	
Iowa	2.2			2.2	
Kansas	1.0			1.0	
Kentucky	34.0			34.0	
Maryland	.8			.8	
Michigan	.1			.1	
Missouri	6.1			6.1	
Montana	120.4		103.3	1.4	15.7
New Mexico	4.5	b	2.7	1.8	
North Carolina	b			b	
North Dakota	10.0				10.0
Ohio	19.1			19.1	
Oklahoma	1.6			1.6	
Oregon	b		b		
Pennsylvania	30.3	7.1		23.2	
South Dakota	.4				.4
Tennessee	1.0			1.0	
Texas	12.7				12.7
Utah	6.5		b	6.5	
Virginia	3.4	.1		3.3	
Washington	1.5		1.2	.3	b
West Virginia	39.8			39.8	
Wyoming	69.9		65.4	4.5	

a. Figures are for resources in the ground, about half of which may be considered recoverable. Includes beds of bituminous coal and anthracite 28 in. or more thick and beds of subbituminous coal and lignite 5 ft. or more thick.

b. Less than 50 million short tons.

Source: U.S. Department of the Interior, Bureau of Mines, *The Demonstrated Reserve Base of Coals in the United States*, January 1, 1980.

TABLE 2-7
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF CRUDE OIL IN THE UNITED STATES, 1976–1984

(Millions of Barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	33,502[d]	—
1977	(40)[e]	1,503	1,117	496	130	168	794	2,862	31,780	(1,722)
1978	366	2,799	1,409	544	116	267	827	3,008	31,355	(425)
1979	337	2,438	2,001	424	104	108	636	2,955	29,810	(1,545)
1980	219	2,883	994	572	147	143	862	2,975	29,805	(5)
1981	138	2,151	880	750	157	254	1,161	2,949	29,426	(379)
1982	(83)	2,245	1,811	634	193	204	1,031	2,950	27,858	(1,568)
1983	462	2,810	1,299	629	190	105	924	3,020	27,735	(123)
1984	159	3,672	1,227	744	158	242	1,144	3,037	28,446	711

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Based on following year data only.
e. Consists only of reported corrections.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1984 Annual Report.

TABLE 2-8
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1984

(Millions of Barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/83	Changes in Reserves During 1984		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**27,735**	**159**	**3,672**	**1,227**
(2) Alabama	51	12	14	8
(3) Alaska	7,307	(1)	871	13
(4) Arkansas	120	2	10	4
(5) California	5,348	51	614	107
(6) Coastal Region Onshore	559	16	126	46
(7) Los Angeles Basin Onshore	343	32	49	9
(8) San Joaquin Basin Onshore	3,032	(13)	409	37
(9) State & Federal Offshore	1,414	16	30	15
(10) Colorado	186[b]	(40)	83	13
(11) Florida	78	1	16	1
(12) Illinois	135	15	27	6
(13) Indiana	34	0	3	1
(14) Kansas	344	23	78	37
(15) Kentucky	35	9	6	5
(16) Louisiana	2,707	11	401	309
(17) North	223[b]	(36)	14	21
(18) South Onshore	569	42	79	51
(19) South State Offshore	142	(4)	15	10
(20) South Federal Offshore	1,773	9	293	227
(21) Michigan	209	(22)	25	21
(22) Mississippi	205	0	29	9
(23) Montana	234	(1)	20	21
(24) Nebraska	44	8	4	3
(25) New Mexico	576	4	204	84
(26) East	542	1	198	76
(27) West	34[b]	3	6	8
(28) North Dakota	258	(6)	43	26
(29) Ohio	130[b]	(2)	4	5
(30) Oklahoma	931	99	123	133
(31) Pennsylvania	41	2	6	8
(32) Texas	7,539	25	916	324
(33) District 1	165[b]	17	19	7
(34) District 2 Onshore	192	0	41	9
(35) District 3 Onshore	517	29	70	33
(36) District 4 Onshore	96	(4)	32	16
(37) District 5	42	(3)	3	2
(38) District 6	918	14	57	27
(39) District 7B	217	34	37	45
(40) District 7C	228	12	32	22
(41) District 8	2,350	(24)	237	63
(42) District 8A	2,366	(39)	300	36
(43) District 9	220	4	31	23
(44) District 10	105	(11)	24	9
(45) State and Federal Offshore	123	(4)	33	32
(46) Utah	187	(9)	13	10
(47) West Virginia	49[b]	26	4	4
(48) Wyoming	957	(42)	155	70
(49) Miscellaneous[c]	30	(6)	3	5

a. Barrel = 42 U.S. gallons.
b. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.
c. Includes Arizona, Missouri, Nevada, New York, South Dakota, Tennessee, and Virginia.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1984 Annual Report.

TABLE 2-8 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1984

(Millions of Barrels)[a]

Changes in Reserves During 1984					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/84	
744	**242**	**158**	**3,037**	**28,446**	(1)
6	3	0	10	68	(2)
2	35	0	638	7,563	(3)
3	1	0	18	114	(4)
83	131	2	415	5,707	(5)
15	0	0	42	628	(6)
6	0	0	48	373	(7)
53	7	2	256	3,197	(8)
9	124	0	69	1,509	(9)
6	1	1	26	198	(10)
3	0	0	15	82	(11)
4	0	0	22	153	(12)
1	0	0	4	33	(13)
27	7	2	67	377	(14)
1	1	0	6	41	(15)
171	22	107	[illegible]	2,661	(16)
10	1	2	28	165	(17)
31	2	13	100	585	(18)
3	0	4	20	130	(19)
127	19	88	301	1,781	(20)
13	3	0	27	180	(21)
6	1	0	31	201	(22)
14	4	3	29	224	(23)
0	0	0	7	46	(24)
26	2	4	72	660	(25)
21	2	4	67	625	(26)
5	0	0	5	35	(27)
32	6	2	49	260	(28)
2	0	2	15	116	(29)
55	2	10	147	940	(30)
2	0	0	3	40	(31)
202	18	21	840	7,557	(32)
5	0	0	26	173	(33)
2	0	1	35	192	(34)
25	2	5	93	522	(35)
6	0	3	18	99	(36)
1	1	0	6	36	(37)
14	0	1	88	889	(38)
8	2	0	35	218	(39)
21	1	3	35	240	(40)
61	3	3	225	2,342	(41)
28	3	2	211	2,413	(42)
12	4	1	35	214	(43)
16	1	1	19	108	(44)
3	1	1	14	111	(45)
11	1	0	21	172	(46)
8	0	0	7	76	(47)
65	4	2	117	954	(48)
1	0	2	2	23	(49)

TABLE 2–9
SUMMARY OF ANNUAL ESTIMATES OF RESERVES OF NATURAL GAS IN CANADA, 1964–1984[a]

(Millions of Cubic Feet)

	Reserves Remaining at Beginning of Year	Changes Due To: Revisions	Revisions and Extensions	Extensions	Discoveries	Net Change in Underground Storage	Net Production	Reserves Remaining at End of Year	Change During Year	Probable Remaining at End of Year[b]
MARKETABLE GAS[c]										
1964	32,992,252	—	—	—	—	—	—	39,319,544	6,327,292	45,572,431
1965	39,319,544	—	—	—	—	—	—	40,354,527	1,034,983	46,434,950
1966	40,354,527	2,158,536	—	1,532,317	512,086	17,918	1,125,289	43,450,095	3,095,568	49,269,076
1967	43,450,095	1,572,424	—	1,268,002	603,459	4,120	1,216,049	45,682,051	2,231,956	50,945,169
1968	45,682,051	230,116	—	2,867,357	282,913	(1,255)	1,394,721	47,666,461	1,948,410	54,185,935
1969	47,666,461	2,043,815	—	2,690,603	1,104,452	2,197	1,556,533	51,950,995	4,284,534	57,467,963
1970	51,950,995	493,804	—	2,516,126	193,682	20,205	1,799,184	53,375,628	1,424,633	60,289,373
1971	53,375,628	983,556	—	2,280,205	775,500	65	1,953,104	55,461,850	2,086,222	61,964,760
1972	55,461,850	(2,004,125)	—	1,243,897	487,538	(5,580)	2,247,798	52,935,782	(2,526,068)	60,546,769
1973	52,935,782	(167,054)	—	1,257,243	686,714	70,097	2,325,350	52,457,432	(478,350)	60,801,088
1974	52,457,432	2,953,557	—	3,487,099	193,056	10,428	2,393,486	56,708,086	4,250,654	64,459,133
1975	56,708,086	(177,606)	—	2,412,582	362,895	29,869	2,361,110	56,974,716	266,630	71,466,773
1976	56,974,716	(367,880)	—	3,587,990	639,345	(11,053)	2,541,176	58,281,942	1,307,226	76,359,832
1977	58,281,942	1,432,871	—	1,852,325	351,007	46,730	2,492,849	59,472,026	1,190,084	78,031,771
ESTABLISHED RESERVES										
1977	76,835,973	d	—	d	d	46,709	2,492,850	79,180,390	2,344,416	—
1978	79,180,390	2,026,962	—	2,534,342	1,018,734	3,443	2,340,406	82,423,467	3,243,077	—
1979	82,423,467	3,012,475	—	2,062,527	3,347,747	10,613	2,263,030	88,593,799	6,170,332	—
1980	88,594,374	62,043	—	1,408,320	900,050	(33,222)	2,486,016	88,445,549	(148,825)	—
1981	88,461,174	2,234,086	—	2,062,408	624,303	9,372	2,405,800	90,985,543	2,524,369	—
1982	90,985,541	1,750,541	—	1,425,609	214,029	73,450	2,466,895	91,982,275	996,734	—
1983	91,966,031	1,899,412	—	982,360	223,149	(114,502)	2,225,705	92,730,743	764,712	—
1984	92,730,742	d	—	d	d	d	2,804,502[e]	99,687,016	6,956,274	—

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Includes proved reserves.
c. For definition refer to Glossary.
d. Not available.
e. Includes net change in underground storage.
( ): Denotes negative volume.
Source: Canadian Petroleum Association, "Report of the Reserves Committee," News Release, August 20, 1985.

TABLE 2–10
ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, 1984[a]

(Millions of Cubic Feet)

Province	Remaining Reserves December 31, 1983	Change During Year	Remaining Reserves At December 31, 1984			
			Total[b]	Net Non-associated	Associated	Dissolved
Canada	**92,730,742**	**6,956,274**	**99,687,016**	**89,279,403**	**6,841,984**	**3,565,629**
Total West Canada	**92,274,294**	**6,957,409**	**99,231,703**	**88,824,977**	**6,841,097**	**3,565,629**
Alberta	61,928,254	5,467,773	67,396,027	57,386,795	6,596,971	3,412,261
Arctic Islands	13,507,175	313,729	13,820,904	13,820,904	—	—
Br. Columbia	7,886,387	64,066	7,950,454	7,612,873	231,668	105,913
Mackenzie Delta	7,553,421	1,142,898	8,696,319	8,696,319	—	—
Mainland Territories	417,655	(6,637)	411,017	394,690	—	16,327
Saskatchewan	981,402	(24,420)	956,982	913,396	12,458	31,128
Total East Canada	**456,449**	**(1,136)**	**455,313**	**454,426**	**887**	**—**
Ontario	448,605	2,094	450,699	450,699	—	—
Other E. Canada	7,844	(3,230)	4,614	3,727	887	—

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Underground storage not included.
( ): Denotes negative volume.
Source: Same as Table 2–9.

TABLE 2-11
CHANGES IN ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, DURING 1984[a]

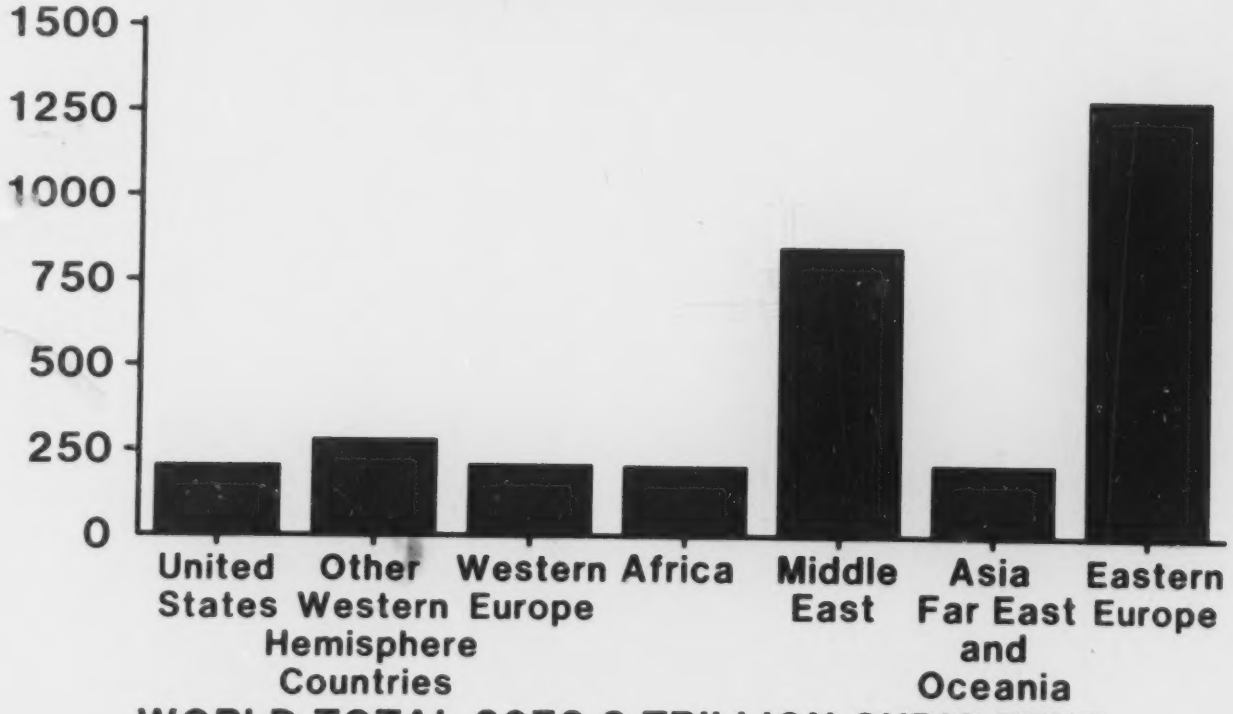
(Millions of Cubic Feet)

Province	Remaining Reserves December 31, 1983	Gross Additions	Net Production[b]	Remaining Reserves December 31, 1984
Canada	**92,730,742**	**9,760,776**	**2,804,502**	**99,687,016**
Total West Canada	**92,274,294**	**9,754,174**	**2,796,763**	**99,231,703**
Alberta	61,928,254	8,007,492	2,539,718	67,396,027
Arctic Islands	13,507,175	313,729	—	13,820,904
Br. Columbia	7,886,387	272,024	207,958	7,950,454
Mackenzie Delta	7,553,421	1,142,898	—	8,696,319
Mainland Territories	417,655	(142)	6,495	411,017
Saskatchewan	981,402	18,173	42,592	956,982
Total East Canada	**456,449**	**6,602**	**7,738**	**455,313**
Ontario	448,605	9,335	7,241	450,699
Other E. Canada	7,844	(2,733)	497	4,614

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Includes net change in underground storage
( ): Denotes negative volume.
Source: Same as Table 2-9.

CHART 2-4

WORLD ESTIMATED NATURAL GAS RESERVES, 1984
(TRILLIONS OF CUBIC FEET)



WORLD TOTAL 3279.6 TRILLION CUBIC FEET

Source: WORLD OIL, August 15, 1985

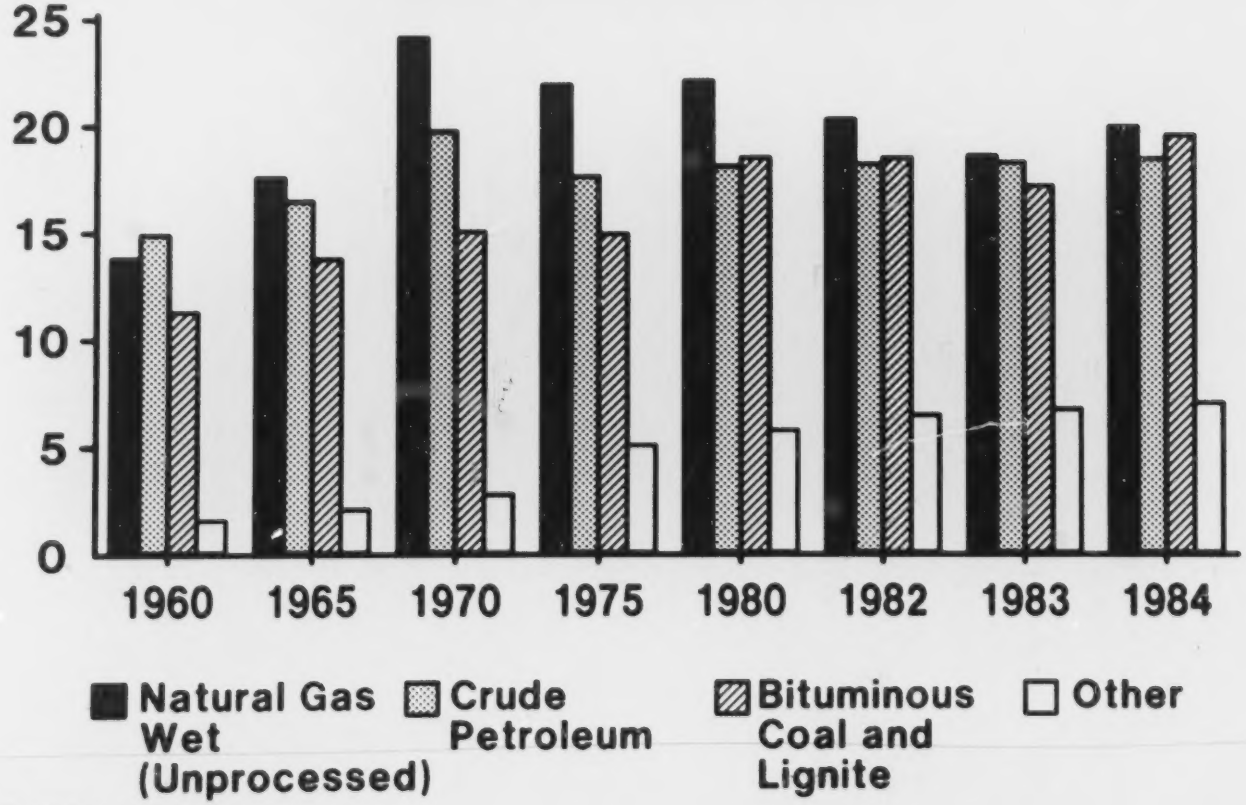
SECTION 3
NATURAL GAS SUPPLY

	1984	% Change 84/83
Maximum Day Sendout (Trillions of Btu)	79.7	+3.0
Production (wet) (Trillions of Btu)	20,115	+8.0*
Net Imports (Millions of cubic feet)	788,308	−8.9
Producing Gas Wells	226,077	+5.5*
New Gas Well Completions	15,705	+0.5

*Percentage change based on preliminary data for both years.

CHART 3-1

UNITED STATES ENERGY PRODUCTION
(QUADRILLIONS OF BTU)



REFERENCE: TABLE 3-1

SUPPLY

TABLE 3-1
ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1984[a]

(Trillions of Btu)

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power[b]	Nuclear[c]	Other[d]	Grand Total Energy
1960	13,822	14,935	10,886	478	1,578	5	e	41,704
1965	17,628	16,521	13,417	378	2,033	38	e	50,015
1970	24,154	19,772	14,820	247	2,630	229	e	61,852
1971	24,805	20,033	13,384	222	2,825	404	e	61,674
1972	24,792	20,041	14,319	181	2,866	576	e	62,775
1973[R]	24,756	19,493	14,000	f	2,861	910	46	62,067
1974[R]	23,681	18,575	14,080	f	3,177	1,272	56	60,841
1975[R]	22,014	17,729	14,995	f	3,155	1,900	72	59,865
1976[R]	21,807	17,262	15,659	f	2,976	2,111	81	59,896
1977[R]	21,892	17,454	15,758	f	2,333	2,702	82	60,222
1978[R]	21,730	18,434	14,912	f	2,937	3,024	68	61,106
1979[R]	22,362	18,104	17,549	f	2,931	2,776	89	63,810
1980[R]	22,161	18,249	18,600	f	2,900	2,739	114	64,764
1981[R]	22,006	18,146	18,379	f	2,758	3,008	127	64,424
1982[R]	20,446	18,309	18,641	f	3,256	3,131	108	63,892
1983[R]	18,714	18,392	17,252	f	3,502	3,203	133	61,196
1984	20,115	18,590	19,696	f	3,387	3,573	174	65,535

a. The 1984 unit heat values employed are: Anthracite, 11,760 Btu per pound; bituminous coal and lignite, 11,121 Btu per pound; petroleum approx. 5,800,000 Btu per barrel; natural gas dry 1,019 Btu per cubic foot; natural gas liquids obtained by using 93,452 Btu per gallon.
b. Hydropower output is converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants.
c. Nuclear power energy input conversion is based on information from the Atomic Power Commission.
d. Includes geothermal power and electricity produced from wood and waste.
e. Not available.
f. Included in "Bituminous Coal and Lignite."
R-Revised.
Source: Prior to 1977 U.S. Bureau of Mines, for 1977 and beyond, data taken from U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review.*

TABLE 3-2
ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1984

(Percentage)

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other[a]	Grand Total Energy
1960	33.2	35.8	26.1	1.1	3.8	b	c	100.0
1965	35.2	33.0	26.8	0.8	4.1	0.1	c	100.0
1970	39.0	32.0	24.0	0.4	4.2	0.4	c	100.0
1971	40.2	32.5	21.7	0.4	4.6	0.6	c	100.0
1972	39.5	31.9	22.8	0.3	4.6	0.9	c	100.0
1973	39.9	31.4	22.5	d	4.6	1.5	.1	100.0
1974[R]	38.9	30.5	23.2	d	5.2	2.1	.1	100.0
1975[R]	36.8	29.6	25.0	d	5.3	3.2	.1	100.0
1976[R]	36.4	28.8	26.2	d	5.0	3.5	.1	100.0
1977[R]	36.4	29.0	26.1	d	3.9	4.5	.1	100.0
1978[R]	35.6	30.2	24.4	d	4.8	4.9	.1	100.0
1979[R]	35.0	28.4	27.5	d	4.6	4.4	.1	100.0
1980[R]	34.2	28.2	28.7	d	4.5	4.2	.2	100.0
1981[R]	34.1	28.2	28.5	d	4.3	4.7	.2	100.0
1982[R]	32.0	28.6	29.2	d	5.1	4.9	.2	100.0
1983[R]	30.6	30.1	28.2	d	5.7	5.2	.2	100.0
1984	30.7	28.4	30.1	d	5.1	5.4	.3	100.0

a. Includes geothermal power and electricity produced from wood and waste.
b. Less than 0.05.
c. Not available.
d. Included in "Bituminous Coal and Lignite."
R-Revised
Source: Same as Table 3-1.

TABLE 3-3
SUPPLY AND DISPOSITION OF GAS IN THE UNITED STATES, 1960–1983

(Millions of Cubic Feet)

	Gross Production[a]						Disposition of Marketed Production									
Year	Gas Wells	Oil Wells	Total	Repressuring	Vented and Flared	Marketed Production[b]	Extraction Loss	Lease and Plant Fuel	Net Change in Storage	Pipeline Fuel	Unaccounted For	Nonhydrocarbon Gases	Domestic Dry Production For Sale	Net Imports	Supplemental Supplies	Delivered to Consumers[c]
1960	10,853,426	4,234,485	15,087,911	1,753,996	562,877	12,771,038	1,779,671		131,694	347,075	274,231	d	10,238,367	144,314	d	10,382,681
1961	11,195,087	4,265,225	15,460,312	1,682,754	523,533	13,254,025	1,881,208		145,616	377,607	234,808	d	10,614,786	208,113	d	10,882,899
1962	11,702,382	4,336,591	16,038,973	1,736,722	425,629	13,876,622	1,993,128		86,487	382,496	285,726	d	11,128,785	385,720	d	11,514,505
1963	12,606,022	4,367,346	16,973,368	1,843,297	383,408	14,746,663	2,081,339		130,772	423,783	364,658	d	11,746,111	389,247	d	12,135,358
1964	13,035,200	4,405,100	17,440,300	1,638,161	339,996	15,462,143	2,082,029		128,804	433,204	302,781	d	12,515,325	421,421	d	12,936,746
1965	13,523,600	4,439,500	17,963,100	1,604,204	319,143	16,039,753	1,909,697		118,115	500,524	318,711	d	13,192,706	430,262	d	13,622,968
1966	13,893,921	5,139,918	19,033,839	1,451,516	375,695	17,206,628	1,772,708		68,855	535,353	401,203	d	14,428,509	455,141	d	14,883,650
1967	15,346,853	4,904,923	20,251,776	1,590,574	489,877	18,171,325	784,534	1,140,966	184,829	575,752	296,214	d	15,189,030	482,612	d	15,671,642
1968	16,539,925	4,785,075	21,325,000	1,486,092	516,508	19,322,400	827,877	1,237,131	95,539	590,965	325,062	d	16,245,826	558,140	d	16,803,966
1969	17,489,415	5,189,780	22,679,195	1,455,205	525,750	20,698,240	866,560	1,345,648	119,500	630,962	331,587	d	17,403,983	675,647	d	18,079,630
1970	18,594,658	5,191,795	23,786,453	1,376,351	489,460	21,920,642	906,413	1,398,758	398,160	722,166	227,650	d	18,267,495	750,967	d	19,018,462
1971	18,925,136	5,162,895	24,088,031	1,310,458	284,561	22,493,012	883,127	1,413,650	331,768	742,592	338,999	d	18,782,876	854,336	d	19,637,212
1972	19,042,592	4,973,517	24,016,109	1,236,292	248,119	22,531,698	907,993	1,455,563	135,734	766,156	328,002	d	18,938,250	941,483	d	19,879,733
1973	19,371,600	4,695,602	24,067,202	1,171,361	248,292	22,647,549	916,551	1,495,915	441,504	728,177	195,863	d	18,869,539	955,732	d	19,825,271
1974	18,669,212	4,180,581	22,849,793	1,079,890	169,381	21,600,522	887,490	1,477,386	83,663	668,792	288,731	d	18,194,460	882,495	d	19,076,955
1975	17,380,293	3,723,237	21,103,530	860,956	133,913	20,108,661	872,282	1,396,277	344,054	582,963	235,068	d	16,678,020	880,333	d	17,558,353
1976	17,190,655	3,753,123	20,943,778	859,410	131,930	19,952,438	854,086	1,634,355	(165,327)	548,323	216,240	d	16,864,760	899,058	d	17,763,818
1977	17,415,983	3,681,088	21,097,071	934,801	136,807	20,025,463	862,563	1,659,145	556,631	532,669	41,063	d	16,373,392	955,375	d	17,328,767
1978	17,394,213	3,914,602	21,308,815	1,181,432	153,350	19,974,033	852,130	1,647,911	120,237	530,451	287,201	d	16,536,103	913,013	d	17,449,116
1979	18,033,879	3,849,474	21,883,353	1,245,074	167,019	20,471,260	807,845	1,498,530	248,034	600,966	372,330	d	16,943,557	1,197,710	d	18,141,267
1980	17,572,526	4,297,166	21,869,692	1,365,454	125,451	20,378,787	776,605	1,026,438	(23,269)	634,622	639,559	199,063	17,125,769	935,874	154,590	18,216,233
1981	17,336,862	4,250,591	21,587,453	1,311,735	98,017	20,177,701	774,562	927,591	297,430	642,325	500,501	221,878	16,813,414	844,826	175,702	17,833,942
1982	15,802,614	4,407,314	20,209,928	1,388,392	93,365	18,728,171	761,942	1,109,398	308,199	596,411	474,736	208,492	15,268,993	881,441	144,811	16,295,245
1983	14,146,668	4,450,426	18,597,095	1,458,054	94,962	17,044,081	789,632	978,249	(447,299)	490,042	642,061	221,937	14,369,459	865,268	131,894	15,366,621

a. Includes gas (mostly residue gas) blown to the air but does not include direct waste on producing properties, except where data are available.
b. "Marketed Production" equals "Total Gross Production" less "Repressuring" and "Vented and Flared." It includes an allowance for natural gas liquids content in the natural gas and nonhydrocarbon gases.
c. Defined as Domestic Dry Production For Sale plus Net Imports plus Supplemental Gas Supplies. See Table 3-15 for details on Supplemental Gas Supplies.
d. 1980 is the first year this data is available.
( ): Denotes negative.

Sources: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

Note: 1984 data reported by U.S. Department of Energy, *Monthly Energy Review*, February 1985 is as follows: "Marketed Production"—18,293,000 million of cubic feet (MMcf); "Net Imports"—806,000 MMcf; "Net Change in Underground Storage"—plus 211,000 MMcf.

TABLE 3-4
GAS UTILITY INDUSTRY, GAS SUPPLY AND DISPOSITION, 1960–1984[a]

(Trillions of Btu)

	Amount						
	1960	1965	1970[b]	1975	1980	1983[R]	1984
Supply—Produced and Purchased—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,276.4**	**14,117.3**	**14,766.7**
Natural	10,544.6	13,315.9	18,661.8	16,490.1	16,935.3	13,860.9	14,575.5
Manufactured	c	c	75.6	19.3	8.8	4.7	5.2
Liquefied Petroleum Gas	c	c	26.9	24.8	17.9	7.9	5.5
Substitute Natural Gas	c	c	1.2	261.3	198.4	155.1	104.7
Liquefied Natural Gas	c	c	0.0	8.4	79.6	25.4	27.9
Unclassified	c	c	64.0	7.6	36.4	63.3	47.9
Disposition—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,276.4**	**14,117.3**	**14,766.7**
Used in Production of Other Gases[d]	215.9	126.7	125.4	124.2	95.0	58.7	49.0
Company Use as a Fuel[e]	757.6	995.7	1,380.1	1,089.3	1,278.7	1,051.2	1,138.3
Sales to Ultimate Consumers	9,054.6	11,842.0	16,043.5	14,862.9	15,413.2	12,857.5	13,161.7
Other Deliveries (Net)	54.9	89.6	70.1	83.9	85.8	53.6	40.3
Placed in Storage (Net)	164.7	67.6	473.6	348.8	16.9	(409.7)	176.2
Unaccounted For[f]	296.9	194.3	736.8	302.4	386.8	506.0	201.2

a. Total supply figures involve some double counting. For production of supplementals see Table 3-15.
b. Includes Natural Gas only prior to 1970.
c. Not available.
d. Includes Natural Gas used for enriching, reforming and mixing.
e. Includes interdepartmental transfers.
f. Represents difference between supply and disposition, and should not be interpreted as a reliable measure of transmission efficiency.
R—Revised.

TABLE 3-5
GAS UTILITY INDUSTRY, MAXIMUM AND MINIMUM DAY SENDOUT[a] BY SOURCE OF SUPPLY, 1977–1984[b]

(Trillions of Btu)

	1977	1978	1979	1980	1981	1982	1983[R]	1984
Maximum Day Sendout—Total	**81.8**	**92.1**	**83.8**	**76.1**	**78.8**	**83.6**	**77.4**	**79.7**
Peak Shaving Facilities	3.7	3.4	2.0	1.3	2.5	3.4	2.5	1.8
Underground Storage Withdrawal	37.3	36.3	38.3	38.3	37.2	42.4	44.1	38.5
Regular Production and Purchases	40.8	52.4	43.5	36.5	39.1	37.8	30.8	39.4
Minimum Day Sendout—Total	**17.0**	**16.3**	**17.8**	**16.0**	**16.6**	**13.7**	**13.1**	**13.6**
Average Day Sendout—Total	**39.3**	**40.4**	**42.3**	**42.2**	**42.1**	**38.9**	**35.1**	**36.0**

a. Represents summation of all companies maximum/minimum day sendout, and is non-coincident.
b. Excludes sendout of pipeline companies to avoid duplication. Underground storage withdrawals include amounts from fields operated by both distributors and pipelines.
R—Revised.

TABLE 3-6
GROSS PRODUCTION OF NATURAL GAS, BY STATE, 1985-1983[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1981	1982	1983
United States	**17,963,100**	**23,786,453**	**21,103,530**	**21,869,692**	**21,587,453**	**20,209,928**	**18,597,095**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**88,240**	**80,472**	**92,400**	**113,089**	**141,454**	**139,871**	**139,952**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,650	19,000	18,760	21,580
Pennsylvania	84,900	77,114	84,772	97,439	122,454	121,111	118,372
East North Central	**82,700**	**97,276**	**191,497**	**305,003**	**301,052**	**298,557**	**297,039**
Illinois	7,500	4,972	1,440	1,574	1,295	1,162	1,030
Indiana	2,400	153	346	463	330	233	135
Michigan	36,900	40,038	103,901	164,110	158,293	158,771	144,574
Ohio	35,900	52,113	85,810	138,856	141,134	138,391	151,300
Wisconsin	0	0	0	0	0	0	0
West North Central	**866,900**	**965,535**	**877,137**	**791,315**	**697,708**	**489,373**	**510,693**
Iowa	0	0	0	0	0	0	0
Kansas	806,800	904,475	846,164	737,246	641,833	430,889	436,044
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	30	0	0	0	0
Nebraska	12,100	6,309	3,963	2,550	2,713	2,280	2,091
North Dakota	48,000	54,751	26,941	50,321	51,955	53,819	70,428
South Dakota	0	b	39	1,198	1,207	2,385	2,130
South Atlantic	**211,060**	**246,599**	**205,683**	**210,852**	**208,749**	**184,163**	**157,811**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	46,421	38,539	26,397	23,356
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	68	56	36	31
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	7,812	8,903	6,880	4,346
West Virginia	207,500	242,981	154,484	156,551	161,251	150,850	130,078
East South Central	**277,300**	**234,912**	**192,544**	**385,362**	**421,525**	**409,894**	**378,543**
Alabama	b	b	38,921	111,836	125,624	133,298	125,889
Kentucky	79,100	77,892	60,511	57,180	61,312	51,924	46,720
Mississippi	198,200	157,020	92,500	215,105	232,870	221,696	201,984
Tennessee	b	b	612	1,241	1,719	2,976	3,950
West South Central	**14,022,900**	**19,469,337**	**17,073,397**	**16,810,823**	**16,432,827**	**15,276,762**	**13,692,350**
Arkansas	104,000	183,650	121,518	127,696	132,529	149,862	153,911
Louisiana	4,764,300	8,076,157	7,242,408	7,008,489	6,829,507	6,216,868	5,379,359
Oklahoma	1,414,000	1,811,004	1,720,698	2,018,577	2,019,199	1,934,412	1,730,061
Texas	7,740,600	9,398,526	7,988,773	7,656,061	7,451,592	6,975,620	6,429,019
Mountain	**1,492,500**	**1,744,236**	**1,849,992**	**1,952,333**	**1,959,241**	**1,842,659**	**1,746,688**
Arizona	b	b	255	357	293	261	240
Colorado	155,200	115,157	174,145	191,806	200,739	214,933	172,842
Idaho	0	0	0	0	0	0	0
Montana	29,800	48,302	44,547	53,802	58,502	58,184	53,516
Nevada	0	0	0	0	0	0	0
New Mexico	956,500	1,141,889	1,227,200	1,168,049	1,153,163	1,009,883	917,158
Utah	92,100	73,386	77,607	87,766	91,191	94,255	63,158
Wyoming	258,900	365,502	326,238	450,553	455,353	465,143	539,774
Pacific	**917,800**	**945,099**	**620,880**	**1,300,915**	**1,424,897**	**1,568,649**	**1,674,019**
Alaska	12,800	217,854	253,227	893,759	943,059	1,084,732	1,164,602
California	905,000	727,245	367,653	407,151	481,833	483,914	509,414
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	5	3	3
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,987**	**0**	**0**	**0**	**0**	**0**

a. Includes gas (mostly residue gas) blown to the air, but does not include direct waste on producing properties, except where data available.
b. Included in "Other States."
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 3-7
NET WELLHEAD PRODUCTION OF NATURAL GAS, BY STATE, 1965-1983[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1981	1982	1983
United States	**16,358,896**	**22,410,102**	**20,242,574**	**20,504,238**	**20,275,718**	**18,821,536**	**17,139,041**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,842**	**80,199**	**92,400**	**113,089**	**141,454**	**139,871**	**139,952**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,650	19,000	18,760	21,580
Pennsylvania	84,502	76,841	84,772	97,439	122,454	121,111	118,372
East North Central	**80,800**	**96,898**	**190,471**	**302,628**	**298,662**	**296,157**	**294,699**
Illinois	7,500	4,972	1,440	1,574	1,295	1,162	1,030
Indiana	2,400	153	346	463	330	233	135
Michigan	35,000	39,660	103,725	161,735	155,903	156,371	142,234
Ohio	35,900	52,113	84,960	138,856	141,134	138,391	151,300
Wisconsin	b	0	0	0	0	0	0
West North Central	**860,204**	**963,410**	**875,409**	**789,841**	**687,946**	**488,512**	**509,508**
Iowa	0	0	0	0	0	0	0
Kansas	806,683	902,668	844,471	735,772	640,755	430,028	435,172
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	30	0	0	0	0
Nebraska	11,985	5,991	3,963	2,550	2,713	2,280	2,091
North Dakota	41,536	54,751	26,941	50,321	43,271	53,819	70,315
South Dakota	0	b	5	1,198	1,207	2,385	1,930
South Atlantic	**211,044**	**246,070**	**205,683**	**210,852**	**206,576**	**183,069**	**157,811**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	46,421	36,366	25,303	23,356
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	68	56	36	31
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	7,812	8,903	6,880	4,346
West Virginia	207,484	242,452	154,484	156,551	161,251	150,850	130,078
East South Central	**255,601**	**211,156**	**186,251**	**369,219**	**408,409**	**392,823**	**360,453**
Alabama	b	b	38,921	108,702	121,819	124,994	114,847
Kentucky	79,100	77,892	60,511	57,180	61,312	51,924	46,720
Mississippi	176,501	133,264	86,207	202,096	223,559	212,929	194,936
Tennessee	b	b	612	1,241	1,719	2,976	3,950
West South Central	**12,769,359**	**18,306,535**	**16,387,930**	**16,273,072**	**15,999,077**	**14,868,441**	**13,291,330**
Arkansas	83,845	181,577	117,555	112,202	93,538	125,584	128,535
Louisiana	4,589,349	7,942,365	7,116,104	6,962,775	6,803,226	6,191,409	5,357,763
Oklahoma	1,356,738	1,724,572	1,637,212	1,917,379	2,019,199	1,934,412	1,730,061
Texas	6,739,427	8,458,021	7,517,059	7,280,716	7,083,114	6,617,036	6,074,971
Mountain	**1,416,853**	**1,705,299**	**1,813,914**	**1,898,955**	**1,902,758**	**1,794,925**	**1,686,671**
Arizona	b	b	255	357	293	261	240
Colorado	131,342	112,930	174,145	191,610	200,341	214,706	172,454
Idaho	0	0	0	0	0	0	0
Montana	29,221	47,908	43,936	53,572	58,461	58,184	53,516
Nevada	0	0	0	0	0	0	0
New Mexico	945,794	1,141,889	1,219,072	1,154,992	1,140,990	997,544	903,399
Utah	72,306	45,633	57,160	87,766	91,191	94,255	63,158
Wyoming	238,190	356,939	319,346	410,658	411,482	429,975	493,904
Pacific	**673,493**	**798,000**	**490,516**	**546,582**	**630,836**	**657,738**	**698,617**
Alaska	7,331	146,384	170,671	235,408	248,194	271,311	281,718
California	666,162	651,616	319,845	311,169	382,637	386,424	416,896
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	5	3	3
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,535**	**0**	**0**	**0**	**0**	**0**

a. As defined by A.G.A. "Net Wellhead Production" equals "Gross Production" less gas for repressuring (see Table 3-3) and therefore includes natural gas liquids.
b. Included in "Other States."
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 3-8
MARKETED PRODUCTION OF NATURAL GAS, BY STATE, 1965-1983

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980[a]	1981[a]	1982[a]	1983[a]
United States	**16,039,753**	**21,920,642**	**20,108,661**	**20,378,787**	**20,177,701**	**18,728,171**	**17,044,081**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,801**	**80,199**	**92,304**	**113,082**	**138,528**	**136,988**	**136,208**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,643	16,074	15,877	17,836
Pennsylvania	84,461	76,841	84,676	97,439	122,454	121,111	118,372
East North Central	**77,877**	**95,967**	**188,859**	**299,195**	**295,352**	**292,837**	**291,375**
Illinois	7,396	4,850	1,440	1,574	1,295	1,162	1,030
Indiana	239	153	346	463	330	233	135
Michigan	34,558	38,851	102,113	158,302	152,593	153,051	138,910
Ohio	35,684	52,113	84,960	138,856	141,134	138,391	151,300
Wisconsin	0	0	0	0	0	0	0
West North Central	**839,751**	**940,922**	**871,006**	**781,124**	**686,361**	**488,026**	**507,992**
Iowa	0	0	0	0	0	0	0
Kansas	793,379	899,955	843,625	735,035	640,114	429,597	434,736
Minnesota	0	0	0	0	0	0	0
Missouri	b	87	30	0	0	0	0
Nebraska	10,720	5,991	2,565	2,550	2,519	2,280	2,091
North Dakota	35,652	34,889	24,786	42,346	42,573	53,818	69,319
South Dakota	b	0	0	1,193	1,155	2,331	1,846
South Atlantic	**210,976**	**246,070**	**205,683**	**210,175**	**206,148**	**182,634**	**157,614**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	0	44,383	45,744	35,938	24,868	23,159
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	68	56	36	31
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	7,812	8,903	6,880	4,346
West Virginia	207,416	242,452	154,484	156,551	161,251	150,850	130,078
East South Central	**245,801**	**204,614**	**172,697**	**349,417**	**393,736**	**379,218**	**349,965**
Alabama	b	627	37,814	105,527	119,334	122,188	113,053
Kentucky	78,976	77,892	60,511	57,180	61,312	51,924	46,720
Mississippi	166,825	126,031	74,345	185,469	211,371	202,130	186,242
Tennessee	b	64	27	1,241	1,719	2,976	3,950
West South Central	**12,507,167**	**17,922,286**	**16,298,056**	**16,195,435**	**15,942,576**	**14,814,626**	**13,236,287**
Arkansas	82,831	181,351	116,237	111,808	92,986	124,611	127,561
Louisiana	4,466,786	7,788,276	7,090,645	6,939,924	6,780,184	6,171,628	5,332,113
Oklahoma	1,320,995	1,594,943	1,605,410	1,891,824	2,019,199	1,934,412	1,730,061
Texas	6,636,555	8,357,716	7,485,764	7,251,879	7,050,207	6,583,975	6,046,552
Mountain	**1,399,156**	**1,669,891**	**1,801,478**	**1,889,983**	**1,891,701**	**1,784,957**	**1,672,185**
Arizona	b	1,101	208	214	187	99	132
Colorado	126,381	105,804	171,629	190,814	199,146	213,483	171,094
Idaho	0	0	0	0	0	0	0
Montana	28,105	42,705	40,734	51,867	56,565	56,517	51,967
Nevada	0	0	0	0	0	0	0
New Mexico	937,205	1,138,980	1,217,430	1,149,781	1,134,113	992,777	897,163
Utah	71,616	42,781	55,354	87,766	91,191	94,255	63,158
Wyoming	235,849	338,520	316,123	409,541	410,499	427,826	488,671
Pacific	**667,639**	**760,693**	**478,578**	**540,376**	**623,299**	**648,885**	**692,455**
Alaska	7,255	111,576	160,270	230,588	242,564	264,365	276,691
California	660,384	649,117	318,308	309,783	380,730	384,517	415,761
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	5	3	3
Washington	0	0	0	0	0	0	0
Other States	**3,585**	**0**	**0**	**0**	**0**	**0**	-

a. Includes 199,063 million cubic feet of nonhydrocarbon gases in 1980, 221,678 million cubic feet in 1981, 208,492 million cubic feet in 1982, and 221,937 million cubic feet in 1983.
b. Included in "Other States."
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 3-9
NATURAL GAS PRODUCTION PURCHASED BY ALL INTERSTATE NATURAL GAS PIPELINE COMPANIES, BY STATE, 1978-1983

(Millions of Cubic Feet)

Division and State	1978	1979	1980	1981	1982	1983
Total United States	**10,865,478**	**11,535,967**	**11,604,272**	**11,959,310**	**10,933,412**	**9,496,902**
New England	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**33,945**	**34,422**	**44,577**	**70,818**	**80,820**	**74,779**
New Jersey	0	0	0	0	0	0
New York	1,812	5,385	2,729	8,606	8,167	9,187
Pennsylvania	32,133	29,037	41,848	62,212	72,653	65,592
East North Central	**23,644**	**25,474**	**44,858**	**47,535**	**50,278**	**57,895**
Illinois	192	186	241	195	476	234
Indiana	33	166	9,587	6,162	38	8
Michigan	0	0	0	0	0	0
Ohio	23,419	25,122	35,030	41,178	49,764	57,653
Wisconsin	0	0	0	0	0	0
West North Central	**712,958**	**672,123**	**589,922**	**499,186**	**341,751**	**336,984**
Iowa	0	0	0	0	0	0
Kansas	698,190	653,468	566,379	472,067	310,949	299,843
Minnesota	0	0	0	0	0	0
Missouri	0	0	0	0	0	0
Nebraska	3,565	3,645	3,322	3,561	2,944	3,004
North Dakota	11,203	14,168	19,103	22,390	25,996	32,834
South Dakota	0	842	1,118	1,168	1,862	1,303
South Atlantic	**161,064**	**157,408**	**165,947**	**175,378**	**162,179**	**139,596**
Delaware	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	18,439	17,821	14,996	9,659	7,724	6,385
Georgia	0	0	0	0	0	0
Maryland	98	79	71	59	37	31
North Carolina	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
Virginia	8,542	8,587	7,818	8,897	6,905	4,323
West Virginia	133,985	130,921	143,062	156,763	147,513	128,857
East South Central	**125,339**	**161,859**	**195,980**	**216,027**	**201,350**	**201,611**
Alabama	13,259	17,310	36,592	40,867	38,953	30,079
Kentucky	50,590	40,859	47,555	50,042	38,527	32,661
Mississippi	61,490	103,690	111,833	125,086	123,586	135,058
Tennessee	0	0	0	32	284	3,813
West South Central	**8,376,897**	**8,982,014**	**9,068,369**	**9,346,583**	**8,689,062**	**7,413,344**
Arkansas	87,808	77,210	71,596	67,143	87,761	79,162
Louisiana	5,146,714	5,210,191	5,161,204	5,264,477	4,759,426	4,031,576
Oklahoma	857,564	944,622	953,838	1,001,138	1,118,021	888,113
Texas	2,284,811	2,749,991	2,881,731	3,013,825	2,723,854	2,414,493
Mountain	**1,411,763**	**1,502,667**	**1,494,619**	**1,603,783**	**1,407,972**	**1,272,693**
Arizona	0	0	0	0	0	0
Colorado	150,425	155,079	157,385	158,639	160,839	122,040
Idaho	0	0	0	524	78	0
Montana	23,190	36,908	30,458	33,701	31,842	31,658
Nevada	0	0	0	0	0	0
New Mexico	954,919	969,836	936,305	1,003,163	806,724	713,159
Utah	38,208	41,519	49,990	63,537	70,855	53,165
Wyoming	245,021	299,325	320,481	344,219	337,634	352,671
Pacific	**0**	**0**	**0**	**0**	**0**	**0**
Undifferentiated*	**19,868**	**0**	**0**	**0**	**0**	**0**

*Production not separable by FERC gas areas.

Source: U.S. Department of Energy Information Administration, *Gas Supplies of Interstate Natural Gas Pipeline Companies*, 1983.

TABLE 3-10
TOTAL OFFSHORE PRODUCTION OF NATURAL GAS AND PERCENT STATE/FEDERALLY CONTROLLED, BY STATE, 1960–1984

	Alaska			California			Louisiana			Texas			Total		
		Percent			Percent			Percent			Percent			Percent	
Year	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS
1960	—	—	—	1,113	100	—	376,093	27	73	30,960	100	—	408,166	33	67
1961	—	—	—	5,903	100	—	431,364	26	74	13,760	100	—	451,027	29	71
1962	—	—	—	10,671	100	—	578,032	22	78	41,280	100	—	629,983	28	72
1963	—	—	—	25,769	100	—	703,230	20	80	30,960	100	—	759,959	26	74
1964	—	—	—	35,323	100	—	773,559	20	80	30,960	100	—	839,842	26	74
1965	11	100	—	40,470	100	—	862,738	25	75	27,520	100	—	931,038	31	69
1966	1,200	100	—	46,839	100	—	1,248,237	23	77	63,682	29	71	1,359,958	26	74
1967	9,046	100	—	46,732	100	—	1,482,622	27	73	160,798	22	78	1,699,198	30	70
1968[R]	25,807	100	—	86,565	99	1	1,906,483	26	74	300,689	29	71	2,319,544	34	66
1969	43,243	100	—	83,904	94	6	2,380,225	23	77	238,056	47	53	2,745,429	29	71
1970[R]	83,140	100	—	71,121	83	17	2,868,466	21	79	264,661	50	50	3,287,388	26	74
1971[R]	86,326	100	—	61,448	74	26	3,207,475	18	82	235,600	67	33	3,590,849	23	77
1972[R]	76,819	100	—	44,781	78	22	3,485,003	17	83	277,282	47	53	3,883,885	22	78
1973[R]	74,655	100	—	37,883	81	19	3,612,878	15	85	251,038	41	59	3,976,454	19	81
1974[R]	74,672	100	—	34,505	84	16	3,867,751	13	87	269,577	41	59	4,246,505	17	83
1975[R]	76,295	100	—	27,272	85	15	3,840,631	13	87	220,530	44	56	4,164,728	17	83
1976[R]	74,143	100	—	22,459	84	16	4,012,801	13	87	205,993	55	45	4,315,396	17	83
1977[R]	77,540	100	—	17,527	81	19	4,133,610	12	88	268,250	68	32	4,496,927	17	83
1978[R]	74,910	100	—	17,668	80	20	4,639,460	11	89	402,000	42	58	5,134,038	15	85
1979[R]	73,792	100	—	16,417	82	18	4,635,487	10	90	719,208	29	71	5,444,904	14	86
1980[R]	64,543	100	—	16,182	81	19	4,422,492	9	91	879,020	29	71	5,382,237	14	86
1981[R]	72,307	100	—	26,237	51	49	4,480,934	8	92	966,983	24	76	5,546,461	12	88
1982[R]	68,372	100	—	31,758	44	56	4,163,089	9	91	1,104,987	22	78	5,368,206	13	87
1983[R]	68,837	100	—	29,817	46	54	3,490,146	9	91	998,951	15	85	4,587,751	12	88
1984	68,688	100	—	41,643	33	67	3,892,103	8	92	1,043,384	11	89	5,045,819	10	90

R—Revised.
Source: U.S. Department of the Interior, Minerals Management Service, *Federal Offshore Statistics.*

TABLE 3-11
INTERSTATE MOVEMENTS AND MOVEMENTS ACROSS U.S. BORDERS OF NATURAL AND SUPPLEMENTAL GAS, 1983[a]

(Millions of Cubic Feet)

Division and State	Interstate Movements			Movements Across U.S. Borders		
	Receipts	Deliveries	Net	Receipts[b]	Deliveries[c]	Net
United States	**45,145,860**	**45,145,860**	**0**	**1,155,993**	**290,726**	**865,267**
New England	**498,850**	**218,143**	**280,707**	**38,788**	**0**	**38,788**
Connecticut	181,304	104,468	76,836	0	0	0
Maine	2,397	0	2,397	0	0	0
Massachusetts	191,701	29,533	162,168	34,178	0	34,178
New Hampshire	11,978	2,287	9,691	0	0	0
Rhode Island	111,470	81,855	29,615	0	0	0
Vermont	0	0	0	4,610	0	4,610
Middle Atlantic	**3,879,311**	**2,282,318**	**1,596,993**	**22,348**	**0**	**22,348**
New Jersey	924,060	514,435	409,625	0	0	0
New York	998,082	295,242	702,840	22,348	0	22,348
Pennsylvania	1,957,169	1,472,641	484,528	0	0	0
East North Central	**6,524,638**	**3,653,782**	**2,870,856**	**6,951**	**218,264**	**(211,313)**
Illinois	1,854,416	920,448	933,968	0	0	0
Indiana	1,464,094	1,056,485	407,609	0	0	0
Michigan	625,986	0	625,986	6,951	218,264	(211,313)
Ohio	1,974,508	1,390,020	584,488	0	0	0
Wisconsin	605,634	286,829	318,805	0	0	0
West North Central	**5,178,534**	**4,812,484**	**366,050**	**381,039**	**8,705**	**372,334**
Iowa	1,001,729	804,228	197,501	0	0	0
Kansas	1,249,165	1,336,973	(87,808)	0	0	0
Minnesota	383,185	510,430	(127,245)	381,039	8,705	372,334
Missouri	1,183,703	920,322	263,381	0	0	0
Nebraska	1,068,515	945,695	122,820	0	0	0
North Dakota	138,101	162,743	(24,642)	0	0	0
South Dakota	154,136	132,093	22,043	0	0	0
South Atlantic	**6,350,589**	**5,248,355**	**1,102,234**	**0**	**0**	**0**
Delaware	38,782	2,063	36,719	0	0	0
District of Columbia	29,566	0	29,566	0	0	0
Florida	293,075	977	292,098	0	0	0
Georgia	1,269,604	965,347	304,257	0	0	0
Maryland	783,232	628,291	154,941	0	0	0
North Carolina	857,732	717,080	140,652	0	0	0
South Carolina	960,964	857,732	103,232	0	0	0
Virginia	944,050	798,296	145,754	0	0	0
West Virginia	1,173,584	1,278,569	(104,985)	0	0	0
East South Central	**13,267,226**	**12,687,838**	**579,388**	**0**	**0**	**0**
Alabama	2,730,841	2,579,069	151,772	0	0	0
Kentucky	2,763,767	2,626,651	137,116	0	0	0
Mississippi	4,775,876	4,712,056	63,820	0	0	0
Tennessee	2,996,742	2,770,062	226,680	0	0	0
West South Central	**5,030,124**	**12,022,334**	**(6,992,210)**	**172,306**	**0**	**172,306**
Arkansas	2,221,118	2,115,459	105,659	0	0	0
Louisiana	1,430,057	5,247,893	(3,817,836)	96,945	0	96,945
Oklahoma	641,333	1,601,634	(960,301)	0	0	0
Texas	737,616	3,057,348	(2,319,732)	75,361	0	75,361
Mountain	**2,533,127**	**3,660,686**	**(1,127,559)**	**447,319**	**10,901**	**436,418**
Arizona	1,130,306	1,011,375	118,931	0	1,646	(1,646)
Colorado	378,709	320,339	58,370	0	0	0
Idaho	77,305	353,270	(275,965)	310,811	0	310,811
Montana	41,239	145,266	(104,027)	136,508	9,255	127,253
Nevada	41,093	2,327	38,766	0	0	0
New Mexico	592,185	1,284,703	(692,518)	0	0	0
Utah	104,760	59,568	45,192	0	0	0
Wyoming	167,530	483,838	(316,308)	0	0	0
Pacific	**1,883,461**	**559,920**	**1,323,541**	**87,242**	**52,856**	**34,386**
Alaska	0	0	0	0	52,856	(52,856)
California	1,238,601	0	1,238,601	0	0	0
Hawaii	0	0	0	0	0	0
Oregon	315,215	268,603	45,612	0	0	0
Washington	329,645	291,317	38,328	87,242	0	87,242

a. Supplemental Gas Supplies totaled 131,895 million cubic feet. See Table 3-15.
b. For detail by country see Table 3-13.
c. For detail by country see Table 3-12.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 3-12
EXPORTS OF NATURAL GAS FROM THE UNITED STATES, 1960-1984

(Millions of Cubic Feet)

Year	Total	Canada	Mexico	Japan[a]
1960	16,100	5,574	10,526	0
1965	27,428	17,892	9,536	0
1966	54,860	44,958	9,902	0
1967	81,595	70,456	11,139	0
1968	93,745	81,647	12,098	0
1969	51,308	34,936	13,390	2,982
1970	69,813	10,860	14,678	44,275
1971	80,365	14,349	15,785	50,231
1972	78,014	15,553	14,579	47,882
1973	77,169	14,824	13,999	48,346
1974	76,789	13,263	13,268	50,258
1975	72,675	10,219	9,454	53,002
1976	64,710	7,506	7,425	49,779
1977	55,626	31	3,940	51,655
1978	52,533	66	4,033	48,434
1979	55,673	76	4,308	51,289
1980	48,731	113	3,886	44,732
1981	59,372	106	3,337	55,929
1982	51,728	162	1,705	49,861
1983[R]	54,638[b]	88[b]	1,694	52,856
1984	54,753	127	1,786	52,840

a. LNG exports from Alaska.
b. Volume does not include 236,088 MMcf of intransit natural gas deliveries. The difference of 153 MMcf in the volume of intransit receipts and deliveries is due to variations in the accounting and billing practices for companies involved in the transfers.
R–Revised.
Source: U.S. Department of Energy, Natural Gas Division.

TABLE 3-13
IMPORTS OF NATURAL GAS TO THE UNITED STATES, 1960-1984

(Millions of Cubic Feet)

Year	Total	Canada	Mexico	Algeria[a]
1960	156,843	109,855	46,988	0
1965	456,694	404,687	52,007	0
1966	480,591	431,955	48,636	0
1967	564,228	513,256	50,972	0
1968	651,885	604,462	47,423	0
1969	726,952	680,107	46,845	0
1970	820,781	778,688	41,336	757
1971	934,547	910,925	20,689	2,933
1972	1,019,495	1,009,092	8,140	2,262
1973	1,032,903	1,027,216	1,632	4,055
1974	959,285	939,063	222	0
1975	953,007	948,114	0	4,893
1976	963,768	953,613	0	10,155
1977	1,010,431	996,723	2,384	11,324
1978	965,545	881,123	0	84,422
1979	1,253,383	1,000,775	0	252,608
1980	984,767	796,507	102,410	85,850
1981	903,950	762,113	105,013	36,824
1982	933,336	783,407	94,794	55,136
1983[R]	919,752[b]	713,269[b]	75,360	131,123
1984	843,061	755,368	51,502	36,191

a. Quantities represent total LNG imports from overseas into the U.S.
b. Volume does not include 236,241 MMcf of intransit natural gas receipts.
R–Revised.
Source: U.S. Department of Energy, Natural Gas Division.

TABLE 3-14
NATURAL GAS DELIVERED TO CONSUMERS BY STATE, 1965-1983[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1981	1982	1983[b]
United States	**13,622,968**	**19,018,462**	**17,558,353**	**18,216,233**	**17,833,942**	**16,295,245**	**15,366,621**
New England	**175,051**	**242,507**	**254,070**	**297,506**	**306,576**	**315,775**	**310,285**
Connecticut	40,722	60,524	63,968	72,512	76,732	77,591	74,211
Maine	0	10,691[c]	13,534[c]	2,166	2,321	2,617	2,419
Massachusetts	113,994	146,226	153,461	181,912	183,900	193,500	190,782
New Hampshire	4,084	d	d	9,448	10,154	9,993	9,635
Rhode Island	16,251	25,066	23,107	27,477	29,086	27,702	28,884
Vermont	0	d	d	3,991	4,383	4,366	4,354
Middle Atlantic	**1,357,337**	**1,772,600**	**1,451,698**	**1,818,067**	**1,895,334**	**1,805,562**	**1,732,089**
New Jersey	209,306	321,910	243,714	339,358	389,458	374,702	404,398
New York	540,672	707,219	573,699	733,800	756,522	770,665	716,488
Pennsylvania	607,359	743,471	634,285	744,909	749,354	660,195	611,203
East North Central	**2,706,665**	**3,843,966**	**3,718,831**	**3,628,619**	**3,493,437**	**3,262,711**	**3,054,656**
Illinois	742,906	1,145,379	1,080,787	1,074,771	1,049,787	974,545	923,921
Indiana	349,827	534,214	467,736	480,346	487,670	459,114	421,252
Michigan	548,390	795,317	865,539	846,278	783,775	725,050	680,452
Ohio	866,589	1,037,801	944,925	883,613	855,704	795,963	732,686
Wisconsin	198,953	331,255	359,844	343,611	316,501	308,039	296,345
West North Central	**1,398,950**	**1,826,005**	**1,686,051**	**1,455,928**	**1,311,759**	**1,255,961**	**1,149,713**
Iowa	236,443	330,363	329,703	256,900	242,357	228,229	212,587
Kansas	385,364	481,483	402,273	411,494	360,833	317,259	276,262
Minnesota	247,561	334,872	327,315	276,717	256,094	253,359	236,401
Missouri	332,219	416,783	362,130	312,872	277,914	274,897	254,823
Nebraska	155,359	207,550	207,371	152,283	132,059	132,933	125,134
North Dakota	15,069	18,645	24,757	21,660	20,512	24,374	21,368
South Dakota	26,935	36,309	32,502	24,002	21,990	24,910	23,138
South Atlantic	**909,869**	**1,465,035**	**1,268,171**	**1,390,415**	**1,422,268**	**1,290,529**	**1,256,665**
Delaware	17,969	26,421	18,603	29,797	30,640	27,799	34,873
District of Columbia	e	e	e	27,868	29,023	28,922	28,952
Florida	182,093	332,223	271,471	304,638	324,414	310,076	293,623
Georgia	206,560	325,650	322,383	307,827	308,949	287,463	289,574
Maryland	113,943[f]	179,784[f]	163,462[f]	156,300	172,915	155,507	143,527
North Carolina	71,473	145,076	111,276	147,448	146,223	135,482	130,792
South Carolina	84,564	156,559	120,308	139,214	138,728	95,220	98,998
Virginia	88,907	128,492	118,083	149,980	140,663	139,840	135,611
West Virginia	144,360	170,830	142,585	127,343	130,713	110,220	100,715
East South Central	**727,845**	**1,009,983**	**809,664**	**856,158**	**826,214**	**794,910**	**741,704**
Alabama	216,998	278,414	245,287	242,793	247,289	220,087	203,687
Kentucky	142,438	209,991	182,781	180,368	174,550	159,446	151,187
Mississippi	189,603	293,154	183,807	219,828	198,396	224,857	203,222
Tennessee	178,806	228,424	197,789	213,169	205,979	190,520	183,608
West South Central	**3,848,796**	**5,545,215**	**5,332,025**	**5,873,159**	**5,686,628**	**4,869,844**	**4,637,354**
Arkansas	255,637	359,338	241,803	260,319	252,553	213,187	194,079
Louisiana	857,118	1,482,275	1,425,686	1,523,691	1,522,261	1,156,364	1,090,109
Oklahoma	389,314	475,974	565,387	639,642	592,220	556,481	525,165
Texas	2,346,727	3,227,628	3,099,149	3,449,507	3,319,594	2,943,812	2,828,001
Mountain	**757,368**	**1,020,744**	**982,840**	**842,444**	**798,597**	**731,854**	**668,119**
Arizona	136,297	168,994	139,130	144,511	157,993	116,536	102,807
Colorado	219,602	277,739	294,760	241,765	197,998	202,482	195,702
Idaho	32,831	42,367	56,182	44,835	41,034	36,870	32,412
Montana	64,320	81,992	75,441	54,460	48,533	47,887	42,634
Nevada	27,679	52,558	61,251	58,284	72,584	46,303	41,830
New Mexico	130,072	191,818	172,638	146,579	134,220	113,564	100,727
Utah	105,524	120,814	116,620	106,647	101,007	110,615	104,429
Wyoming	41,043	84,462	66,818	45,363	45,228	57,597	47,578
Pacific	**1,741,087**	**2,292,407**	**2,055,003**	**2,053,937**	**2,093,122**	**1,968,088**	**1,816,041**
Alaska	5,917	41,672	66,815	122,966	106,207	143,395	141,116
California	1,572,367	2,017,393	1,727,729	1,729,650	1,789,444	1,647,535	1,502,575
Hawaii	0	0	0	3,131	2,899	2,804	2,669
Oregon	55,383	89,776	101,980	73,083	71,914	67,412	64,042
Washington	107,420	143,566	158,479	125,107	122,658	106,942	105,639

a. Includes deliveries made directly to end users in addition to gas utility sales as shown in Table 6-7.
b. Includes 131,895 million cubic feet (MMcf) of Supplemental Gas Supplies, less 221,937 MMcf of Nonhydrocarbon Gases.
c. Includes New Hampshire and Vermont.
d. Included in Maine.
e. Included in Maryland.
f. Includes District of Columbia.

Sources: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

GAS FACTS

TABLE 3-15
SUPPLEMENTAL GAS SUPPLIES BY STATE, 1983

(Millions of Cubic Feet)

Division and State	Total	Synthetic Natural Gas	Propane-Air	Refinery Gas	Other[a]
United States	**131,894**	**95,634**	**8,034**	**12,021**	**16,206**
New England	**11,957**	**9,412**	**2,536**	**9**	**0**
Connecticut	291	0	291	0	0
Maine	12	0	12	0	0
Massachusetts	10,732	9,412	1,311	9	0
New Hampshire	328	0	328	0	0
Rhode Island	594	0	594	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**15,386**	**3,016**	**608**	**11,041**	**721[b]**
New Jersey	9,896	507	536	8,853	0
New York	1,646	894	31	0	721[b]
Pennsylvania	3,844	1,615	41	2,188	0
East North Central	**88,864**	**80,194**	**2,150**	**972**	**5,551[c,d]**
Illinois	19,734	19,409	325	0	0
Indiana	4,142	0	575	972	2,595[d]
Michigan	2,956	0	e	0	2,956[c]
Ohio	62,032	60,785	1,248	0	0
Wisconsin	2	0	2	0	0
West North Central	**3,309**	**0**	**1,298**	**0**	**2,011[b,c]**
Iowa	23	0	1	0	22[b]
Kansas	0	0	0	0	0
Minnesota	1	0	1	0	0
Missouri	1,278	0	1,278	0	0
Nebraska	2,006	0	17	0	1,989[c]
North Dakota	0	0	0	0	0
South Dakota	1	0	1	0	0
South Atlantic	**964**	**237**	**727**	**0**	**b,e**
Delaware	20	0	20	0	0
District of Columbia	0	0	0	0	0
Florida	1	0	1	0	0
Georgia	84	0	84	0	0
Maryland	352	166	186	0	b,e
North Carolina	59	0	59	0	0
South Carolina	73	0	73	0	0
Virginia	375	71	304	0	0
West Virginia	0	0	0	0	0
East South Central	**307**	**0**	**307**	**0**	**0**
Alabama	9	0	9	0	0
Kentucky	259	0	259	0	0
Mississippi	0	0	0	0	0
Tennessee	39	0	39	0	0
West South Central	**14**	**0**	**14**	**0**	**0**
Arkansas	0	0	0	0	0
Louisiana	0	0	0	0	0
Oklahoma	0	0	0	0	0
Texas	14	0	14	0	0
Mountain	**8,302**	**0**	**380**	**0**	**7,922[c]**
Arizona	0	0	0	0	0
Colorado	7,927	0	5	0	7,922[c]
Idaho	0	0	0	0	0
Montana	0	0	0	0	0
Nevada	2	0	2	0	0
New Mexico	e	0	e	0	0
Utah	0	0	0	0	0
Wyoming	373	0	373	0	0
Pacific	**2,789**	**2,775**	**14**	**0**	**0**
Alaska	0	0	0	0	0
California	0	0	0	0	0
Hawaii	2,775	2,775	0	0	0
Oregon	3	0	3	0	0
Washington	11	0	11	0	0

a. Includes coke oven gas, manufactured gas, biomass gas, and air injection for Btu stabilization.
b. Biomass gas.
c. Air injection for Btu stabilization.
d. Coke oven gas.
e. Less than 500,000 cubic feet.

Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 3-16
NATURAL GAS TREATED FOR NATURAL GASOLINE AND ALLIED PRODUCTS, AND QUANTITIES AND VALUE OF PRODUCTS RECOVERED, 1960-1984[a]

Year	Natural Gas Treated	Products Recovered							
		Natural Gasoline		Liquefied Petroleum Gases		Finished Gasoline and Naphtha		Other Products[b]	
	(Millions of cubic feet)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)
1960	9,768,189	4,479,454	313,058	8,444,074	391,566	503,659	43,400	859,394	60,361
1961	10,261,669	4,666,319	311,966	9,085,465	370,186	473,496	31,996	965,648	68,057
1962	11,089,241	4,772,260	333,965	9,409,083	353,334	450,991	37,347	1,021,271	73,505
1963	12,430,353	4,899,323	320,131	10,302,250	359,770	499,901	40,922	1,135,743	78,120
1964	13,176,126	5,286,703	341,714	10,743,591	362,792	506,505	37,815	1,206,973	84,071
1965	13,772,101	5,457,367	360,603	11,257,267	417,249	439,267	36,270	1,391,436	97,481
1966	14,924,429	5,564,139	366,332	12,134,294	527,223	380,135	33,380	1,604,154	120,426
1967	15,641,633	5,850,271	389,156	13,717,861	632,994	307,263	28,044	1,731,727	129,742
1968	16,316,674	6,210,708	411,695	14,753,004	552,335	280,728	26,577	1,868,622	133,407
1969	17,655,108	6,633,018	457,986	15,895,194	498,927	374,514	36,954	1,467,396	108,144
1970	18,509,309	6,935,838	468,602	16,783,662	672,088	240,702	23,234	1,488,270	111,188
1971	19,252,807	6,942,474	496,676	17,540,628	769,397	224,784	23,210	1,240,344	96,771
1972	19,906,893	6,875,442	500,425	18,678,912	828,718	186,732	20,737	1,063,986	83,261
1973	19,679,291	6,791,736	568,214	18,775,386	1,188,289	136,038	13,902	942,606	86,668
1974	18,684,480	6,212,766	974,825	18,813,732	1,980,769	52,878	10,028	797,664	122,305
1975	17,748,426	5,620,608	777,637	18,651,612	1,893,890	45,528	8,411	712,488	92,650
1976	17,717,951	5,575,584	882,718	18,369,372	2,298,647	40,572	9,650	670,362	93,074
1977	17,569,835	5,587,134	c	18,604,152	c	30,156	c	577,668	c
1978	c	5,306,784	c	18,124,512	c	28,896	c	567,420	c
1979	c	4,042,668	c	26,008,878	c	271,908	c	917,952	c
1980	c	4,560,696	c	18,518,304	c	239,694	c	864,360	c
1981	c	4,471,740	c	19,259,772	c	154,014	c	773,472	c
1982	c	3,850,308	c	19,277,622	c	93,030	c	545,916	c
1983	c	3,015,684	c	20,142,276	c	128,772	c	608,160	c
1984	c	4,490,136	c	20,506,248	c	2,898	c	52,752	c

a. Due to changes in reporting requirements, 1979-1984 data is not comparable with prior years.
b. Includes kerosene, distillate fuel oil, and miscellaneous products.
c. Not available.
Source: U.S. Department of Energy, Energy Information Administration, *Petroleum Supply Annual*, 1984.

TABLE 3-17
NUMBER OF PRODUCING GAS WELLS, BY STATE, 1965-1984[a]

Division and State	1965	1970	1975	1980	1982	1983[R]	1984[P]
United States	**111,680**	**117,483**	**132,095**	**182,004**	**210,753**	**221,952**	**226,077**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**18,666**	**16,839**	**18,200**	**21,976**	**25,969**	**27,423**	**27,800**
New Jersey	0	0	0	0	0	0	0
New York	1,150	600	900	2,076	2,969	3,423	3,800
Pennsylvania	17,516	16,239	17,300	19,900	23,000	24,000	24,000
East North Central	**7,626**	**9,082**	**11,110**	**18,442**	**23,389**	**26,977**	**29,707**
Illinois	25	8	41	70	57	64	157
Indiana	275	50	478	698	736	737	1,194
Michigan	226	1,235	209	423	484	414	510
Ohio	7,100	7,789	10,382	17,251	22,112	25,762	27,846
Wisconsin	0	0	0	0	0	0	0
West North Central	**7,281**	**8,735**	**8,925**	**12,935**	**13,927**	**14,214**	**11,614**
Iowa	0	0	0	0	0	0	0
Kansas	7,200	8,690	8,865	12,820	13,800	14,100	11,503
Minnesota	0	0	0	0	0	0	[illegible]
Missouri	11	11	3	0	0	0	[illegible]
Nebraska	39	35	19	22	23	23	21
North Dakota	31	29	18	80	66	51	90
South Dakota	0	0	20	13	38	40	0
South Atlantic	**19,719**	**20,833**	**21,901**	**26,167**	**27,756**	**29,982**	**31,199**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0
Maryland	20	16	15	9	8	8	0
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	99	115	186	258	298	299	499
West Virginia	19,600	20,702	21,700	25,900	27,450	29,675	30,700
East South Central	**6,490**	**7,255**	**7,684**	**8,922**	**9,644**	**10,085**	**11,074**
Alabama	0	2	45	314	489	461	664
Kentucky	6,100	6,913	7,386	7,984	8,219	8,532	9,013
Mississippi	370	325	248	447	596	552	671
Tennessee	20	15	5	177	340	540	726
West South Central	**40,502**	**42,283**	**48,440**	**71,447**	**83,417**	**85,392**	**85,211**
Arkansas	744	1,008	1,128	1,114	1,959	1,763	2,492
Louisiana	8,563	9,690	11,359	16,190	16,586	16,700	14,238
Oklahoma	7,447	8,168	9,769	16,419	20,742	22,230	23,647
Texas	23,748	23,417	26,184	37,724	44,130	44,699	44,834
Mountain	**10,352**	**11,425**	**14,189**	**20,914**	**25,196**	**26,380**	**24,614**
Arizona	8	4	1	1	1	1	0
Colorado	701	861	1,380	2,997	4,008	4,391	3,663
Idaho	0	0	0	0	0	0	0
Montana	784	739	1,235	1,881	2,111	2,133	1,958
Nevada	0	0	0	0	0	0	0
New Mexico	8,010	8,848	10,352	14,571	16,967	17,547	16,401
Utah	148	173	271	200	282	322	659
Wyoming	701	800	950	1,264	1,827	1,986	1,933
Pacific	**1,044**	**1,031**	**1,646**	**1,201**	**1,455**	**1,499**	**1,246**
Alaska	11	51	61	71	97	78	78
California	1,033	980	1,585	1,125	1,352	1,413	1,168
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	6	8	0
Washington	0	0	0	0	0	0	0
Other States	**0**	**0**	**0**	**0**	**0**	**0**	**60**
Federal Waters	**b**	**b**	**b**	**b**	**b**	**b**	**3,552**

a. Data pertain only to dry gas and condensate wells. Data as of December 31.
b. "Federal Waters" is included in Texas, Louisiana, and California totals.
P–Preliminary. R–Revised.
Source: Preliminary numbers taken from *World Oil*, February 15, 1985. Revised numbers taken from U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 3-18
NEW GAS WELL COMPLETIONS, BY STATE, 1965-1984

Division and State	1965	1970	1975	1980	1982	1983	1984
United States	**4,724**	**3,840**	**7,580**	**15,730**	**18,952**	**15,628**	**18,705**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**304**	**267**	**876**	**1,459**	**2,190**	**1,354**	**1,831**
New Jersey	0	0	0	0	0	0	0
New York	18	17	236	360	456	424	455
Pennsylvania	286	250	640	1,099	1,734	930	1,376
East North Central	**317**	**711**	**610**	**2,021**	**2,601**	**3,627**	**3,196**
Illinois	8	5	5	8	10	16	21
Indiana	10	4	17	46	24	22	21
Michigan	36	19	33	54	46	47	58
Ohio	263	683	555	1,913	2,521	3,542	3,096
Wisconsin	0	0	0	0	0	0	0
West North Central	**207**	**111**	**440**	**607**	**874**	**530**	**426**
Iowa	0	0	0	0	0	0	0
Kansas	206	108	438	573	810	489	419
Minnesota	0	0	0	0	0	0	0
Missouri	0	0	1	1	11	2	0
Nebraska	1	2	1	14	9	17	5
North Dakota	0	1	0	15	25	10	2
South Dakota	0	0	0	4	19	12	0
South Atlantic	**697**	**553**	**582**	**1,420**	**1,749**	**1,582**	**1,681**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	2	0	0
Georgia	0	0	0	0	0	0	0
Maryland	1	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	1	0	26	9	52	12	52
West Virginia	695	553	556	1,411	1,695	1,570	1,629
East South Central	**195**	**132**	**218**	**413**	**495**	**662**	**823**
Alabama	0	5	26	61	63	69	95
Kentucky	177	111	123	126	225	203	460
Mississippi	15	12	31	58	70	52	39
Tennessee	3	4	38	168	137	338	229
West South Central	**2,478**	**1,670**	**3,611**	**7,647**	**8,536**	**6,304**	**6,443**
Arkansas	44	36	23	121	164	189	210
Louisiana	542	539	815	1,779	1,414	897	1,171
Oklahoma	549	321	638	2,063	2,613	1,901	1,820
Texas	1,343	774	2,135	3,684	4,345	3,317	3,242
Mountain	**451**	**335**	**1,193**	**2,081**	**2,378**	**1,478**	**1,208**
Arizona	0	0	0	0	0	1	0
Colorado	53	47	300	481	601	526	480
Idaho	0	0	0	0	0	0	0
Montana	10	74	279	252	250	121	107
Nevada	0	0	0	0	0	0	0
New Mexico	303	159	517	996	1,106	547	424
Utah	27	10	19	98	156	130	70
Wyoming	58	45	78	254	265	153	127
Pacific	**75**	**61**	**50**	**82**	**120**	**83**	**96**
Alaska	13	5	4	3	10	2	1
California	62	56	46	77	109	81	95
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	2	1	0	0
Washington	0	0	0	0	0	0	0
Federal Waters	**0**	**0**	**0**	**0**	**10**	**8**	**1**

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1984.

TABLE 3-19
NEW FIELD WILDCAT WELLS DRILLED AND PROPORTION SUCCESSFUL 1960-1984

Year	Total Drilled	Dry	Productive	Percent Productive
1960	7,320	6,575	745	10.2
1965	6,182	5,544	638	10.3
1966	6,158	5,523	635	10.3
1967	5,271	4,727	544	10.3
1968	5,205	4,763	442	8.5
1969	5,956	5,421	535	9.0
1970	5,069	4,576	493	9.7
1971	4,463	4,027	436	9.7
1972	5,086	4,520	566	11.1
1973	4,989	4,288	701	14.1
1974	5,652	4,847	805	14.2
1975	6,104	5,228	876	14.4
1976	5,840	4,854	986	16.9
1977	6,101	5,097	1,004	16.5
1978	6,505	5,522	983	15.1
1979	6,413	5,251	1,162	18.1
1980	7,034	5,694	1,340	19.0
1981	8,052	6,629	1,423	17.7
1982	7,912	6,512	1,400	17.7
1983	6,487	5,349	1,138	17.5
1984	6,087	5,207	880	14.5

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1984.

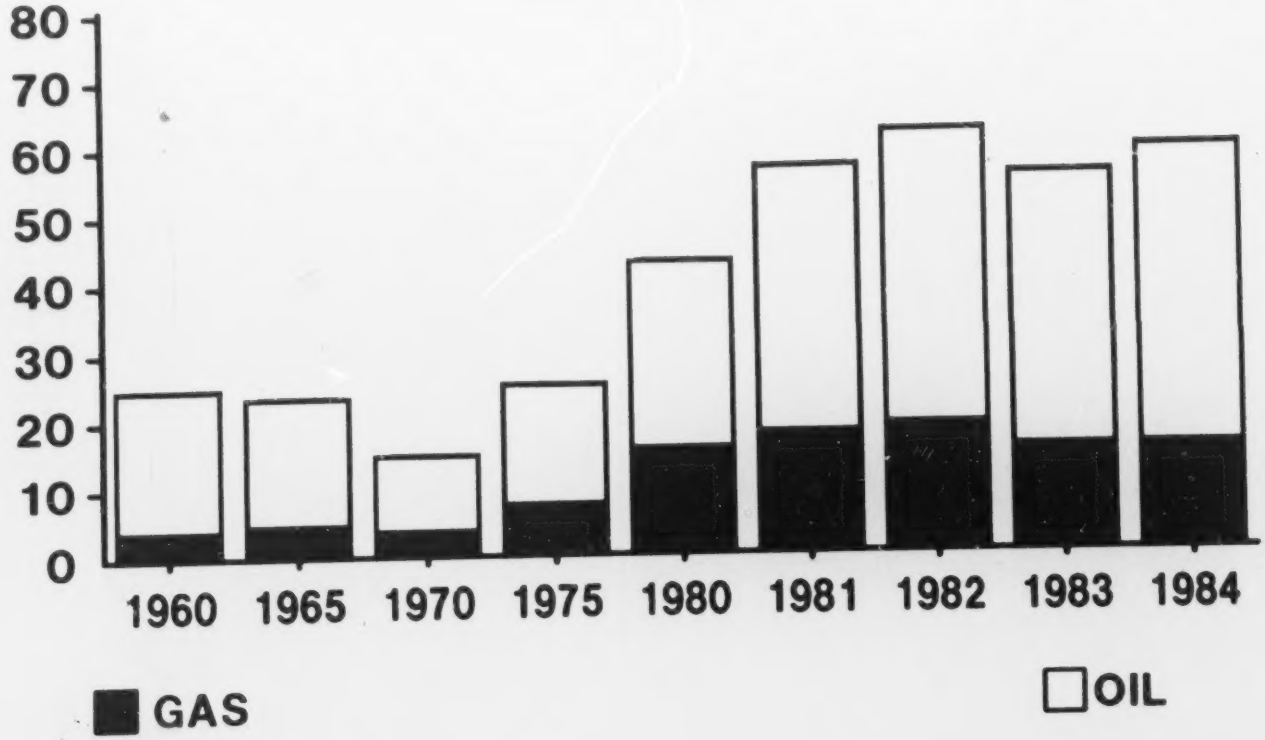
TABLE 3-20
NEW WELL COMPLETIONS, BY TYPE OF WELL, 1960-1984

Year	Total[a]	Oil	Condensate	Gas	Service[a]	Dry
1960	46,751	21,186	1,306	3,952	2,733	17,574
1965	41,432	18,761	b	4,724	1,922	16,025
1966	37,881	16,447	b	4,167	1,497	15,770
1967	33,630	15,329	b	3,659	1,396	13,246
1968	32,038	14,331	b	3,456	1,439	12,812
1969	33,677	14,368	b	4,083	1,490	13,736
1970	29,341	13,020	b	3,840	1,221	11,260
1971	27,250	11,858	b	3,830	1,399	10,163
1972	28,725	11,306	b	4,928	1,434	11,057
1973	27,551	9,902	b	6,385	959	10,305
1974	32,756	12,784	b	7,240	1,058	11,674
1975	38,732	16,408	b	7,580	1,497	13,247
1976	41,305	17,059	b	9,085	1,540	13,621
1977	46,328	18,912	b	11,378	1,346	14,692
1978	48,434	17,775	b	13,064	1,377	16,218
1979	51,203	19,383	b	14,681	1,387	15,752
1980	62,427	27,026	b	15,730	1,582	18,089
1981	80,408	37,671	b	17,894	1,870	22,973
1982	87,969	40,301	b	18,952	2,174	26,542
1983	78,384	37,207	b	15,628	2,055	23,494
1984	84,108	41,095	b	15,705	2,076	25,232

a. Excludes stratigraphic and core tests.
b. Included with gas after 1962.
Source: *Oil and Gas Journal* prior to 1968, American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1984.

CHART 3-2

TOTAL GAS AND OIL NEW WELL COMPLETIONS (THOUSANDS)



REFERENCE: TABLE 3-20

TABLE 3-21
NEW WELL COMPLETIONS, BY TYPE OF WELL AND STATE, 1984

Division and State	Total*	Oil	Gas	Service*	Dry
United States	**84,108**	**41,095**	**15,705**	**2,076**	**25,232**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**3,135**	**1,183**	**1,831**	**45**	**76**
New Jersey	0	0	0	0	0
New York	545	72	455	1	17
Pennsylvania	2,590	1,111	1,376	44	59
East North Central	**9,556**	**3,618**	**3,196**	**223**	**2,519**
Illinois	2,881	1,592	21	119	1,149
Indiana	976	407	21	60	488
Michigan	934	303	58	11	562
Ohio	4,765	1,316	3,096	33	320
Wisconsin	0	0	0	0	0
West North Central	**8,666**	**4,363**	**426**	**181**	**3,696**
Iowa	0	0	0	0	0
Kansas	7,451	3,783	419	144	3,105
Minnesota	0	0	0	0	0
Missouri	178	94	0	26	58
Nebraska	356	126	5	11	214
North Dakota	651	351	2	0	298
South Dakota	30	9	0	0	21
South Atlantic	**2,051**	**236**	**1,681**	**31**	**103**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	21	7	0	0	14
Georgia	2	0	0	0	2
Maryland	0	0	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	59	2	52	0	5
West Virginia	1,969	227	1,629	31	82
East South Central	**7,301**	**2,748**	**823**	**161**	**3,569**
Alabama	287	20	95	0	172
Kentucky	5,952	2,418	460	161	2,913
Mississippi	559	157	39	0	363
Tennessee	503	153	229	0	121
West South Central	**43,290**	**22,999**	**6,443**	**850**	**12,998**
Arkansas	821	271	210	16	324
Louisiana	6,475	2,874	1,171	108	2,322
Oklahoma	9,877	5,263	1,820	48	2,746
Texas	26,117	14,591	3,242	678	7,606
Mountain	**5,933**	**2,728**	**1,208**	**88**	**1,909**
Arizona	7	0	0	0	7
Colorado	1,624	563	480	0	581
Idaho	6	0	0	0	6
Montana	661	293	107	3	258
Nevada	22	5	0	0	17
New Mexico	1,664	936	424	41	263
Utah	397	198	70	0	129
Wyoming	1,552	733	127	44	648
Pacific	**4,073**	**3,213**	**96**	**497**	**267**
Alaska	130	115	1	8	6
California	3,942	3,098	95	489	260
Hawaii	0	0	0	0	0
Oregon	1	0	0	0	1
Washington	0	0	0	0	0
Federal Waters	**103**	**7**	**1**	**0**	**95**

*Excludes stratigraphic and core tests, which totaled 75 in 1984.
Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1984.

TABLE 3-22
HOLES DRILLED AND PROPORTION SUCCESSFUL, BY TYPE OF EXPLORATION HOLE
1960-1984

	Outposts-Extensions	New-Pool Wildcats	Deeper-Pool Tests	Shallower-Pool Tests	New-Field Wildcats	Total
1960						
Drilled	2,431	1,342	495	116	7,320	11,704
Dry	1,603	1,000	309	28	6,575	9,515
Productive	828	342	186	88	745	2,189
Percent Productive	34.1	25.5	37.6	75.9	10.2	18.7
1965						
Drilled	1,131	1,707	353	93	6,182	9,466
Dry	805	1,374	242	40	5,544	8,005
Productive	326	333	111	53	638	1,461
Percent Productive	28.8	19.5	31.4	57.0	10.3	15.4
1970						
Drilled	1,228	1,043	260	93	5,069	7,693
Dry	832	808	167	39	4,576	6,422
Productive	396	235	93	54	493	1,271
Percent Productive	32.2	22.5	35.8	58.1	9.7	16.5
1975						
Drilled	1,577	1,112	288	133	6,104	9,214
Dry	905	719	181	38	5,228	7,071
Productive	672	393	107	95	876	2,143
Percent Productive	42.6	35.3	37.2	71.4	14.4	23.3
1977						
Drilled	1,914	1,376	366	204	6,101	9,961
Dry	1,040	870	236	32	5,097	7,275
Productive	874	506	130	172	1,004	2,686
Percent Productive	45.7	36.8	35.5	84.3	16.5	27.0
1978						
Drilled	2,024	1,549	380	219	6,505	10,677
Dry	1,180	958	247	42	5,522	7,949
Productive	844	591	133	177	983	2,728
Percent Productive	41.7	38.2	35.0	80.8	15.1	25.6
1979						
Drilled	1,853	1,486	486	246	6,374	10,445
Dry	1,003	841	304	61	5,212	7,421
Productive	850	645	182	185	1,162	3,024
Percent Productive	45.9	43.4	37.5	75.2	18.2	29.0
1980						
Drilled	1,981	1,819	789	293	7,034	11,916
Dry	1,104	952	523	69	5,694	8,342
Productive	877	867	266	224	1,340	3,574
Percent Productive	44.3	47.7	33.7	76.4	19.1	30.0
1981						
Drilled	3,028	2,340	1,299	449	8,052	15,168
Dry	1,541	1,353	907	153	6,629	10,583
Productive	1,487	987	392	296	1,423	4,585
Percent Productive	49.1	42.2	30.2	65.9	17.7	30.2
1982						
Drilled	3,328	2,870	1,782	613	7,914	16,507
Dry	1,864	1,699	1,315	233	6,512	11,623
Productive	1,464	1,171	467	380	1,402	4,884
Percent Productive	44.0	40.8	26.2	62.0	17.7	29.6
1983						
Drilled	2,498	2,281	1,979	640	6,489	13,887
Dry	1,437	1,340	1,491	288	5,351	9,907
Productive	1,061	941	488	352	1,138	3,980
Percent Productive	42.5	41.3	24.7	55.0	17.5	28.7
1984						
Drilled	3,340	2,580	2,311	758	6,088	15,077
Dry	2,077	1,618	1,869	384	5,208	11,156
Productive	1,263	962	442	374	880	3,921
Percent Productive	37.8	37.3	19.1	49.3	14.5	26.0

Source: Committee on Statistics of Drilling, *American Association of Petroleum Geologists Bulletin*, 1984.

TABLE 3-23
WELLS AND DRY HOLES DRILLED AS EXPLORATORY TESTS, BY STATE AND TYPE OF WELL, 1984

Division and State	Total Drilled	Dry Holes	Producers		
			Total	Oil	Gas
United States	**15,077**	**11,156**	**3,921**	**2,421**	**1,500**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**120**	**17**	**103**	**5**	**98**
New Jersey	0	0	0	0	0
New York	34	9	25	2	23
Pennsylvania	86	8	78	3	75
East North Central	**1,628**	**1,306**	**322**	**219**	**103**
Illinois	656	559	97	94	3
Indiana	402	324	78	70	8
Michigan	443	380	63	40	23
Ohio	127	43	84	15	69
Wisconsin	0	0	0	0	0
West North Central	**2,780**	**2,066**	**714**	**611**	**103**
Iowa	0	0	0	0	0
Kansas	2,267	1,653	614	516	98
Minnesota	0	0	0	0	0
Missouri	49	44	5	5	0
Nebraska	174	153	21	18	3
North Dakota	272	198	74	72	2
South Dakota	18	18	0	0	0
South Atlantic	**58**	**21**	**37**	**3**	**34**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	12	12	0	0	0
Georgia	2	2	0	0	0
Maryland	0	0	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	0	0	0	0	0
West Virginia	44	7	37	3	34
East South Central	**2,337**	**1,694**	**643**	**445**	**198**
Alabama	112	90	22	5	17
Kentucky	1,865	1,333	532	402	130
Mississippi	246	210	36	26	10
Tennessee	114	61	53	12	41
West South Central	**6,279**	**4,640**	**1,639**	**802**	**837**
Arkansas	124	113	11	8	3
Louisiana	733	660	73	37	36
Oklahoma	539	379	160	95	65
Texas	4,883	3,488	1,395	662	733
Mountain	**1,591**	**1,189**	**402**	**297**	**105**
Arizona	7	7	0	0	0
Colorado	523	382	141	94	47
Idaho	6	6	0	0	0
Montana	219	154	65	55	10
Nevada	19	17	2	2	0
New Mexico	205	117	88	58	30
Utah	101	76	25	18	7
Wyoming	511	430	81	70	11
Pacific	**205**	**145**	**60**	**38**	**22**
Alaska	7	3	4	4	0
California	197	141	56	34	22
Hawaii	0	0	0	0	0
Oregon	1	1	0	0	0
Washington	0	0	0	0	0
Federal Waters	**79**	**78**	**1**	**1**	**0**

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1984.

TABLE 3-24
DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1982-1983[a]

	Total	Oil	Gas[b]	Dry
		1982		
Wells drilled	76,652	35,865	17,052	23,735
Footage drilled (000)	362,618	144,304	100,804	117,510
Expenditure (000)	$39,428,118	$12,458,580	$14,737,668	$12,231,870
Average depth per well (ft)	4,731	4,024	5,912	4,951
Average cost per well	$ 514,378	$ 347,374	$ 864,278	$ 515,352
Average cost per foot	$ 108.73	$ 86.33	$ 146.20	$ 104.09
		1983		
Wells drilled	67,536	33,485	12,919	21,132
Footage drilled (000)	301,226	130,824	72,487	97,915
Expenditure (000)	$25,104,542	$9,503,761	$7,855,762	$7,745,019
Average depth per well (ft)	4,460	3,907	5,611	4,633
Average cost per well	$ 371,721	$ 283,821	$ 608,078	$ 366,507
Average cost per foot	$ 83.34	$ 72.65	$ 108.37	$ 79.10

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1984.

TABLE 3-25
OFFSHORE DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1982-1983[a]

	Total	Oil	Gas[b]	Dry
		1982		
Wells drilled	1,464	486	442	536
Footage drilled (000)	14,537	4,269	4,592	5,676
Expenditures (000)	$6,153,820	$1,563,370	$2,165,054	$2,425,396
Average depth per well (ft)	9,930	8,784	10,388	10,590
Average cost per well	$4,203,429	$3,216,811	$4,898,313	$4,524,993
Average cost per foot	$ 423.32	$ 366.20	$ 471.52	$ 427.29
		1983		
Wells drilled	1,270	459	293	518
Footage drilled (000)	12,831	4,312	3,124	5,395
Expenditures (000)	$4,960,724	$1,499,152	$1,213,033	$2,248,539
Average depth per well (ft)	10,104	9,395	10,664	10,415
Average cost per well	$3,906,082	$3,266,127	$4,140,044	$4,340,809
Average cost per foot	$ 386.59	$ 347.63	$ 388.23	$ 416.78

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1984.

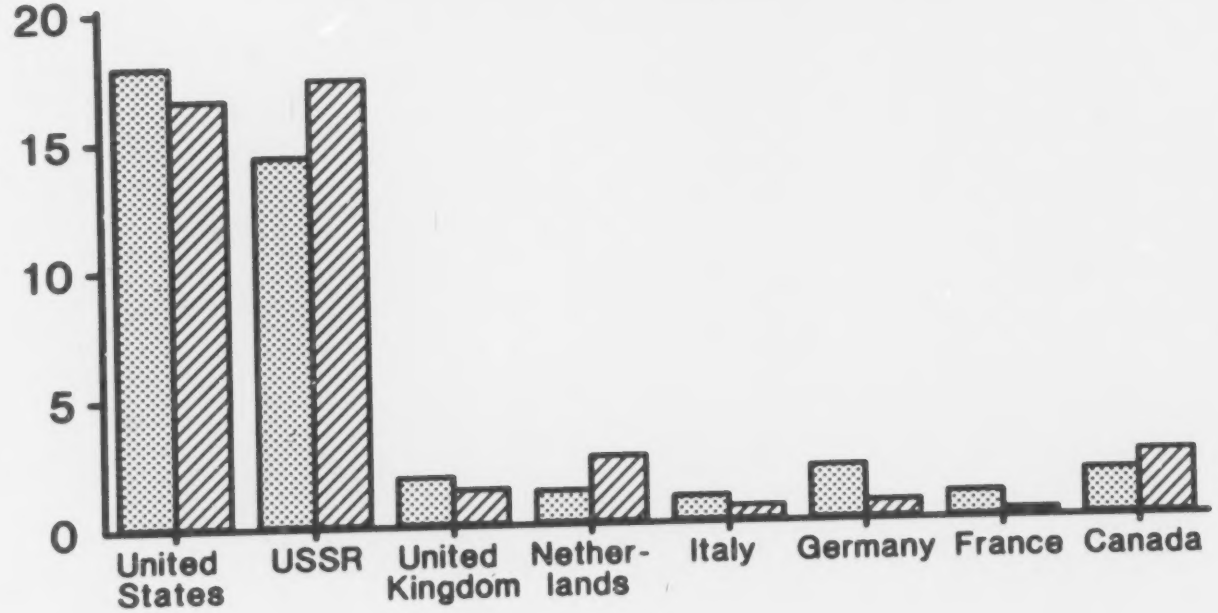
TABLE 3-26
AVERAGE COST PER FOOT BY TYPE OF WELL, BY DEPTH CLASSES, 1979-1983[a]

Depth Range (in feet)	Total	Oil	Gas	Dry
		1979		
0- 1,249	$ 31.84	$ 33.31	$ 31.52	$ 28.44
1,250- 2,499	31.86	35.78	32.01	25.19
2,500- 3,749	31.02	34.50	33.64	23.71
3,750- 4,999	32.26	37.68	34.27	25.02
5,000- 7,499	43.81	48.57	48.23	34.97
7,500- 9,999	69.98	67.09	83.64	60.10
10,000-12,499	106.12	112.48	114.04	94.01
12,500-14,999	139.26	145.70	150.77	125.12
15,000-17,499	191.82	186.10	196.77	187.71
17,500-19,999	240.59	140.99	237.83	245.15
20,000 and over	378.62	220.84	382.45	399.21
		1980		
0- 1,249	$ 35.62	$ 37.13	$ 35.61	$ 30.89
1,250- 2,499	36.04	40.11	35.04	28.73
2,500- 3,749	36.82	41.31	41.00	26.37
3,750- 4,999	38.40	44.65	41.09	28.39
5,000- 7,499	51.18	56.22	56.73	40.23
7,500- 9,999	77.09	76.70	89.68	65.71
10,000-12,499	121.97	126.20	129.45	110.52
12,500-14,999	170.50	167.77	179.17	163.04
15,000-17,499	237.23	258.21	233.38	236.34
17,500-19,999	285.63	406.31	300.57	258.49
20,000 and over	396.84	b	396.20	397.63
		1981		
0- 1,249	$ 46.17	$ 46.76	$ 51.62	$ 42.10
1,250- 2,499	42.00	47.92	39.97	31.46
2,500- 3,749	43.09	49.21	46.77	30.82
3,750- 4,999	46.24	54.92	48.09	34.41
5,000- 7,499	63.16	70.74	68.86	49.94
7,500- 9,999	95.86	94.92	109.58	86.32
10,000-12,499	148.80	145.50	163.37	138.05
12,500-14,999	207.53	199.99	228.61	192.20
15,000-17,499	286.38	270.92	314.25	260.55
17,500-19,999	412.30	348.08	433.37	393.12
20,000 and over	509.90	508.40	443.82	575.99
		1982		
0- 1,249	$ 39.50	$ 42.35	$ 47.77	$ 29.75
1,250- 2,499	39.50	46.24	41.96	26.96
2,500- 3,749	42.60	49.18	47.33	28.64
3,750- 4,999	46.77	55.08	50.16	32.77
5,000- 7,499	65.76	74.39	71.19	50.52
7,500- 9,999	101.32	98.63	120.51	89.70
10,000-12,499	160.97	165.42	174.95	143.37
12,500-14,499	239.97	238.27	260.12	219.04
15,000-17,499	337.08	332.07	354.38	318.49
17,500-19,999	462.98	477.76	503.54	409.53
20,000 and over	607.72	423.23	586.21	638.86
		1983		
0- 1,249	$ 37.13	$ 39.35	$ 44.63	$ 29.96
1,250- 2,499	38.07	44.71	40.89	24.60
2,500- 3,749	38.08	43.61	43.20	25.19
3,750- 4,999	41.01	50.52	40.01	28.54
5,000- 7,499	53.44	61.93	53.38	43.02
7,500- 9,999	81.37	82.91	86.27	74.99
10,000-12,499	127.31	131.51	146.48	104.95
12,500-14,499	211.85	216.01	220.35	202.20
15,000-17,499	295.25	340.40	302.32	275.03
17,500-19,999	412.40	365.65	413.40	416.48
20,000 and over	645.79	578.32	659.82	639.18

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees but excludes exploration, development and production costs and expenditures for service wells.
b. No data reported.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1984.

CHART 3-3

NATURAL GAS PRODUCTION AND GROSS CONSUMPTION 1983
(QUADRILLIONS OF BTU)



REFERENCE: TABLE 3-27

TABLE 3-27
SELECT WORLD NATURAL GAS STATISTICS
1983

Country	Production	Imports	Exports	Gross Consumption	Residential Consumers (000)	Miles of Pipeline (000)
	(Trillions of Btu)					
Austria	46.2	95.1	—	169.6	945	6.4
Belgium	.7	326.4	9.7	314.0	3,582	20.2
Canada	2,514.1	.1	727.0	1,819.5	2,793	89.5
Czechoslovakia	19.7	261.0	.3	288.6	3,539	17.6
Denmark	—	.6	—	.5	400	2.4
Finland	—	24.7	—	24.7	78	.3
France	246.2	836.2	5.7	988.4	8,420	75.4
German Democratic Republic	137.5	205.9	7.0	338.6	3,580	26.1
Federal Republic of Germany	601.8	1,470.8	309.5	1,747.2	8,172[a]	96.6[a]
Greece	3.0	—	—	3.0	6	.3
Hungary	235.6	135.3	.4	358.4	3,434	5.1
Ireland	78.3	—	—	78.3	167	2.2
Italy	553.1[a]	511.4[a]	—	1,012.4[a]	8,100[a]	51.4[a]
Luxembourg	—	11.4	—	11.4	56	.6
Netherlands	2,550.5	106.0	1,371.3	1,285.2	4,550[a]	57.2[b]
Norway	978.2	—	936.8	41.4	2	.1
Poland	159.4	195.3	—	354.7	6,678	16.6
Spain	—	96.1	—	94.3	1,429	9.5
Switzerland	—	49.2	—	47.9	506	6.2
USSR	17,428.9	—	—	14,377.1[c]	60,531	197.3
United Kingdom	1,447.7	424.9	—	1,872.6	15,751	144.2
United States	16,559.9	970.5	56.5	17,941.6	44,667[a]	993.2
Yugoslavia	64.9	94.5	—	159.4	d	d

a. 1982.
b. 1981.
c. 1980.
d. Not available
Source: United Nations, *Annual Bulletin of Gas Statistics for Europe*, 1983.

TABLE 3-28
WORLD WELL COMPLETIONS
1982

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	40,291	18,884	25,573	2,691	6,447	93,886	436,163,397
South America	3,166	94	638	177	199	4,274	24,001,612
Far East	2,550	294	270	1,005	146	5,128[b]	31,955,549
Western Europe	345	176	337	72	77	1,007	7,819,005
Middle East	365	35	104	231	31	850[b]	5,889,074
Africa	509	70	239	49	79	946	7,736,372
Oceania	110	75	146	1	6	338	2,169,827
World Total[a]	47,336	19,628	27,307	4,226	6,985	106,429[b]	515,734,836

a. No drilling data available for Eastern Europe, Iran and Iraq.
b. Sum of wells by category will not equal total due to unavailable breakdown for China and Syria.
Source: *World Oil*, August 15, 1983.

WORLD WELL COMPLETIONS
1983

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	35,996	12,415	19,958	1,574	4,577	74,520	329,698,538
South America	2,712	90	594	187	649	4,232	21,125,880
Far East	2,994	225	303	1,005	204	5,709[b]	35,339,436
Western Europe	308	194	300	52	69	923	7,561,222
Middle East	402	53	107	133	52	829[c]	6,013,465
Africa	382	24	150	51	22	849[d]	6,967,296
Oceania	84	46	153	0	4	288	2,044,670
World Total[a]	42,878	13,047	21,565	3,002	5,577	87,350	408,750,507

a. No drilling data available for Eastern Europe, USSR, Iran and Iraq
b. Total does not add due to inclusion of 978 total wells from China.
c. Total does not add due to inclusion of 82 total wells from Syria.
d. Total does not add to inclusion of 140 total wells from Algeria and 80 total wells from Libya.
Source: *World Oil*, August 15, 1984.

WORLD WELL COMPLETIONS
1984

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	41,317	13,074	22,741	3,461	1,621	82,214	398,641,219
South America	2,483	90	605	231	189	3,598	19,046,226
Far East	3,772	207	273	1,308	190	6,912[b]	41,172,157
Western Europe	302	185	444	72	79	1,082	9,096,193
Middle East	345	33	89	85	17	704[c]	5,403,163
Africa	317	27	158	13	90	671[d]	5,038,719
Oceania	147	79	167	1	0	394	2,782,519
World Total[a]	48,683	13,695	24,477	5,171	2,186	95,575	481,180,196

a. No drilling data available for Eastern Europe, USSR, Iran and Iraq.
b. Total does not add due to inclusion of 1,162 total wells from China.
c. Total does not add due to inclusion of 40 total wells from Iran and 95 total wells from Syria.
d. Total does not add due to inclusion of 66 total wells from Algeria.
Source: *World Oil*, August 15, 1985.

SECTION 4
UNDERGROUND GAS STORAGE

	1984	% Change 84/83
Number of Pools	412	− 1.7
Est. Ultimate Capacity (Millions of cubic feet)	7,783,050	+ 0.4
Input to Storage (Millions of cubic feet)	2,147,811	+30.6
Output from Storage (Millions of cubic feet)	1,900,411	− 7.6
Maximum Day Output (Millions of cubic feet)	37,409	−12.8

TABLE 4-1
NUMBER OF UNDERGROUND STORAGE POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960-1984

Year	Number of Pools	Number of States	Est. Ultimate Capacity (bill. cu. ft.)
1960	217	20	2,854
1965	293	24	4,086
1966	303	25	4,421
1967	308	25	4,520
1968	315	26	4,783
1969	320	26	4,927
1970	325	26	5,178
1971	333	26	5,575
1972	348	26	6,040
1973	360	26	6,279
1974	367	26	6,360
1975	376	26	6,644
1976	386	26	6,927
1977	385	26	7,223
1978	388	26	7,330
1979	399	26	7,437
1980	401	26	7,488
1981	393	26	7,581
1982	404	26	7,728
1983	419	26	7,755
1984	412	26	7,783

Source: A.G.A. *The Underground Storage of Gas in the United States and Canada*—1984 Update.

UNDERGROUND STORAGE

TABLE 4-2
NUMBER OF AQUIFER POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960–1984[a]

Year	Number of Pools	Number of States	Est. Ultimate Capacity (bill. cu. ft.)
1960	14	8	b
1965	37	9	643
1970	43	9	968
1971	44	8	1,056
1972	46	9	1,278
1973	49	10	1,399
1974	51	10	1,408
1975	52	10	1,459
1976	52	10	1,484
1977	52	10	1,578
1978	53	10	1,593
1979	54	10	1,601
1980	57	10	1,449
1981	56	10	1,423
1982	56	10	1,432
1983	56	10	1,421
1984	54	10	1,472

a. These data are also in Table 4-1.
b. Not available.
Source: Same as Table 4-1.

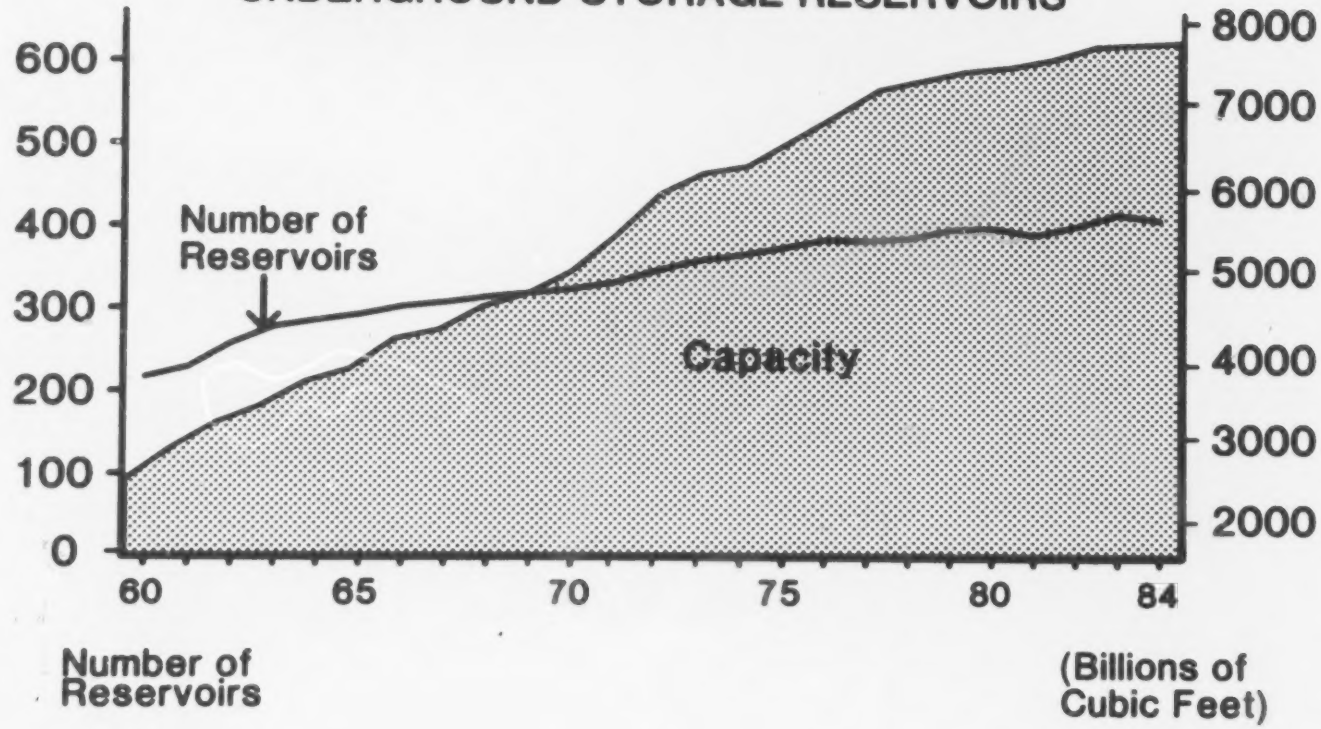
TABLE 4-3
LIQUEFIED NATURAL GAS STORAGE OPERATIONS IN THE UNITED STATES AS OF DECEMBER 31, 1984[a]

	Presently Operating	Proposed or Pending Operation
Complete Plants		
Storage Capacity—MMcf	62,728	3,069
Gross Liquefaction Capacity—MMcfday	320	14
Sendout Capacity—MMcfday	8,706	360
Number of Facilities	52	2
Satellite Plants		
Storage Capacity—MMcf	7,228	0
Sendout Capacity—MMcfday	724	0
Number of Facilities	44	0
Import Terminals[b]		
Storage Capacity—MMcf	3,250	17,000
Sendout Capacity—MMcfday	285	2,740
Number of Facilities	1	4

a. Not underground storage.
b. Of those presently operating, Algonquin terminal has been utilized for domestic storage since 1973.
Source: Institute of Gas Technology.

CHART 4-1

NUMBER AND CAPACITY OF EXISTING UNDERGROUND STORAGE RESERVOIRS



REFERENCE: TABLE 4-1

TABLE 4-4
INPUTS, OUTPUTS, AND GAS IN UNDERGROUND STORAGE, BY STATE, 1984

(Millions of Cubic Feet)

Division and State	Year Ending December 31, 1984					
	Input to Storage	Output from Storage	Native Gas	Stored Gas	Maximum Stored Gas	Maximum Day Output
United States	**2,147,811**	**1,900,411**	**1,131,606**	**5,348,589**	**5,782,219**	**37,409**
New England	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**383,750**	**340,428**	**43,583**	**758,399**	**821,503**	**5,801**
New Jersey	0	0	0	0	0	0
New York	58,809	48,439	15,096	137,690	147,371	915
Pennsylvania	324,941	291,989	28,487	620,709	674,132	4,886
East North Central	**697,201**	**672,791**	**354,445**	**1,833,321**	**2,004,373**	**12,734**
Illinois	198,198	177,632	11,384	823,296	857,663	3,942
Indiana	22,072	18,138	19,298	88,673	91,831	418
Michigan	319,199	298,302	238,816	516,215	597,113	5,553
Ohio	157,732	178,719	84,947	405,137	457,766	2,821
Wisconsin	0	0	0	0	0	0
West North Central	**145,271**	**115,421**	**47,741**	**499,520**	**534,206**	**1,931**
Iowa	63,755	56,660	0	237,705	260,331	822
Kansas	70,368	48,482	29,424	169,901	179,757	958
Minnesota	1,112	419	0	6,684	6,705	45
Missouri	4,407	4,407	0	29,286	29,298	0
Nebraska	5,629	5,453	18,317	55,944	58,115	106
North Dakota	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
South Atlantic	**166,700**	**137,451**	**65,709**	**462,307**	**474,987**	**2,672**
Delaware	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Maryland	17,352	15,409	32,456	28,790	29,522	300
North Carolina	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
Virginia	0	0	0	0	0	0
West Virginia	149,348	122,042	33,253	433,517	445,465	2,372
East South Central	**117,899**	**87,477**	**107,316**	**191,010**	**204,515**	**1,906**
Alabama	0	0	0	0	0	0
Kentucky	63,710	50,926	79,993	113,763	124,526	960
Mississippi	54,189	36,551	27,323	77,247	79,989	946
Tennessee	0	0	0	0	0	0
West South Central	**450,284**	**362,928**	**192,199**	**967,330**	**1,045,113**	**6,941**
Arkansas	1,827	1,439	22,000	9,929	10,283	92
Louisiana	193,021	159,699	72,011	369,966	401,773	3,172
Oklahoma	106,565	76,184	25,096	309,006	324,481	1,879
Texas	148,871	125,606	73,092	278,429	308,576	1,798
Mountain	**76,801**	**64,632**	**168,920**	**359,232**	**375,822**	**1,207**
Arizona	0	0	0	0	0	0
Colorado	24,844	28,259	29,060	48,327	57,753	604
Idaho	0	0	0	0	0	0
Montana	39,571	23,577	103,414	202,071	206,973	238
Nevada	0	0	0	0	0	0
New Mexico	3,977	4,144	10,600	31,394	32,148	158
Utah	2,376	2,374	0	4,986	4,986	27
Wyoming	6,033	6,278	25,846	72,454	73,962	180
Pacific	**109,904**	**119,286**	**151,694**	**277,469**	**321,701**	**4,214**
Alaska	0	0	0	0	0	0
California	98,458	108,922	151,694	247,104	290,912	3,939
Hawaii	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Washington	11,446	10,364	0	30,365	30,789	275

Source: Same as Table 4-1.

TABLE 4-5
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1982-1984

Division and State	Number of Pools			Number of Active Wells		
	1982	1983	1984	1982	1983	1984
(1) United States	**404**	**419**	**412**	**18,170**	**18,318**	**18,367**
(2) New England	**0**	**0**	**0**	**0**	**0**	**0**
(3) Middle Atlantic	**83**	**92**	**92**	**2,993**	**2,987**	**2,981**
(4) New Jersey	0	0	0	0	0	0
(5) New York	21	22	22	831	837	838
(6) Pennsylvania	62	70	70	2,162	2,150	2,143
(7) East North Central	**142**	**143**	**141**	**8,980**	**8,977**	**8,987**
(8) Illinois	35	35	34	1,758	1,744	1,765
(9) Indiana	30	31	30	965	967	954
(10) Michigan	54	54	54	2,978	2,980	2,978
(11) Ohio	23	23	23	3,279	3,286	3,290
(12) Wisconsin	0	0	0	0	0	0
(13) West North Central	**31**	**31**	**29**	**1,419**	**1,414**	**1,420**
(14) Iowa	9	9	8	426	426	434
(15) Kansas	18	18	17	798	791	789
(16) Minnesota	1	1	1	61	61	61
(17) Missouri	1	1	1	82	82	82
(18) Nebraska	2	2	2	52	54	54
(19) North Dakota	0	0	0	0	0	0
(20) South Dakota	0	0	0	0	0	0
(21) South Atlantic	**38**	**38**	**38**	**1,642**	**1,647**	**1,669**
(22) Delaware	0	0	0	0	0	0
(23) District of Columbia	0	0	0	0	0	0
(24) Florida	0	0	0	0	0	0
(25) Georgia	0	0	0	0	0	0
(26) Maryland	1	1	1	82	82	82
(27) North Carolina	0	0	0	0	0	0
(28) South Carolina	0	0	0	0	0	0
(29) Virginia	0	0	0	0	0	0
(30) West Virginia	37	37	37	1,560	1,565	1,587
(31) East South Central	**26**	**28**	**28**	**1,291**	**1,306**	**1,303**
(32) Alabama	0	0	0	0	0	0
(33) Kentucky	22	24	24	1,190	1,205	1,202
(34) Mississippi	4	4	4	101	101	101
(35) Tennessee	0	0	0	0	0	0
(36) West South Central	**47**	**49**	**46**	**943**	**1,012**	**987**
(37) Arkansas	5	5	4	23	23	12
(38) Louisiana	8	8	8	341	346	347
(39) Oklahoma	14	14	14	300	300	295
(40) Texas	20	22	20	279	343	333
(41) Mountain	**26**	**27**	**27**	**404**	**474**	**513**
(42) Arizona	0	0	0	0	0	0
(43) Colorado	8	9	9	174	174	198
(44) Idaho	0	0	0	0	0	0
(45) Montana	5	5	5	139	206	217
(46) Nevada	0	0	0	0	0	0
(47) New Mexico	3	3	3	42	44	45
(48) Utah	2	2	2	17	17	19
(49) Wyoming	8	8	8	32	33	34
(50) Pacific	**11**	**11**	**11**	**498**	**501**	**507**
(51) Alaska	0	0	0	0	0	0
(52) California	9	9	9	421	424	430
(53) Hawaii	0	0	0	0	0	0
(54) Oregon	0	0	0	0	0	0
(55) Washington	2	2	2	77	77	77

Source: Same as Table 4-1.

TABLE 4-5 (Continued)
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1982-1984

Number of Compressor Stations			Total HP Installed in Compressor Stations			
1982	1983	1984	1982	1983	1984	
301	**292**	**292**	**1,657,669**	**1,707,697**	**1,715,276**	(1)
0	**0**	**0**	**0**	**0**	**0**	(2)
62	**52**	**52**	**251,800**	**251,830**	**252,730**	(3)
0	0	0	0	0	0	(4)
14	14	14	38,550	38,550	38,580	(5)
48	38	38	213,250	213,280	214,150	(6)
93	**92**	**95**	**644,711**	**669,751**	**670,865**	(7)
29	27	29	216,830	216,520	217,380	(8)
17	17	18	19,476	19,476	19,780	(9)
29	29	29	328,770	330,470	331,170	(10)
18	19	19	79,635	103,285	102,535	(11)
0	0	0	0	0	0	(12)
20	**20**	**20**	**94,295**	**94,295**	**93,275**	(13)
4	4	4	37,860	37,860	37,040	(14)
12	12	12	34,435	34,435	34,435	(15)
1	1	1	2,400	2,400	2,400	(16)
1	1	1	8,850	8,850	8,850	(17)
2	2	2	10,750	10,750	10,550	(18)
0	0	0	0	0	0	(19)
0	0	0	0	0	0	(20)
20	**20**	**20**	**91,310**	**89,610**	**89,610**	(21)
0	0	0	0	0	0	(22)
0	0	0	0	0	0	(23)
0	0	0	0	0	0	(24)
0	0	0	0	0	0	(25)
1	1	1	11,000	11,000	11,000	(26)
0	0	0	0	0	0	(27)
0	0	0	0	0	0	(28)
0	0	0	0	0	0	(29)
19	19	19	80,310	78,610	78,610	(30)
20	**21**	**21**	**73,960**	**74,200**	**71,950**	(31)
0	0	0	0	0	0	(32)
17	18	18	38,460	38,700	38,700	(33)
3	3	3	35,500	35,500	33,250	(34)
0	0	0	0	0	0	(35)
48	**49**	**45**	**296,625**	**320,702**	**322,692**	(36)
6	5	3	1,470	1,870	1,800	(37)
8	8	8	137,040	137,040	137,040	(38)
11	11	12	80,450	80,569	84,389	(39)
23	25	22	77,665	101,223	99,463	(40)
27	**27**	**28**	**77,738**	**80,079**	**86,924**	(41)
0	0	0	0	0	0	(42)
7	7	8	30,800	30,800	37,670	(43)
0	0	0	0	0	0	(44)
6	6	6	23,440	24,235	24,235	(45)
0	0	0	0	0	0	(46)
5	5	5	11,180	12,705	12,680	(47)
2	2	2	1,200	1,200	1,200	(48)
7	7	7	11,118	11,139	11,139	(49)
11	**11**	**11**	**127,230**	**127,230**	**127,230**	(50)
0	0	0	0	0	0	(51)
10	10	10	115,430	115,430	115,430	(52)
0	0	0	0	0	0	(53)
0	0	0	0	0	0	(54)
1	1	1	11,800	11,800	11,800	(55)

TABLE 4-6
ULTIMATE CAPACITY OF EXISTING RESERVOIRS, BY STATE, 1984

(Millions of Cubic Feet)

Division and State	Cushion Gas			Working Gas	Ultimate Reservoir Capacity*
	Native	Injected	Total		
United States	**1,131,606**	**2,459,164**	**3,590,770**	**2,902,486**	**7,783,050**
New England	**0**	**0**	**0**	**0**	**0**
Connecticut	0	0	0	0	0
Maine	0	0	0	0	0
Massachusetts	0	0	0	0	0
New Hampshire	0	0	0	0	0
Rhode Island	0	0	0	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**43,583**	**387,101**	**430,683**	**371,298**	**918,354**
New Jersey	0	0	0	0	0
New York	15,096	77,629	92,724	60,061	182,428
Pennsylvania	28,487	309,472	337,959	311,237	735,926
East North Central	**354,445**	**1,023,941**	**1,378,386**	**820,655**	**2,656,495**
Illinois	11,384	553,498	564,882	269,937	907,400
Indiana	19,298	57,761	77,059	30,913	169,749
Michigan	238,816	161,388	400,204	365,962	988,939
Ohio	84,947	251,294	336,241	153,843	590,407
Wisconsin	0	0	0	0	0
West North Central	**47,741**	**238,355**	**286,096**	**261,164**	**730,085**
Iowa	0	117,751	117,751	119,954	354,500
Kansas	29,424	97,335	126,759	72,566	222,147
Minnesota	0	4,605	4,605	2,078	20,000
Missouri	0	11,759	11,759	17,527	45,000
Nebraska	18,317	6,905	25,222	49,039	88,438
North Dakota	0	0	0	0	0
South Dakota	0	0	0	0	0
South Atlantic	**65,709**	**252,134**	**317,843**	**210,174**	**576,351**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	0	0	0	0	0
Georgia	0	0	0	0	0
Maryland	32,456	11,946	44,402	16,845	64,770
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	0	0	0	0	0
West Virginia	33,253	240,188	273,441	193,329	511,581
East South Central	**107,316**	**46,555**	**153,871**	**145,184**	**321,142**
Alabama	0	0	0	0	0
Kentucky	79,993	27,788	107,781	86,704	212,825
Mississippi	27,323	18,767	46,090	58,480	108,317
Tennessee	0	0	0	0	0
West South Central	**192,199**	**348,584**	**540,783**	**619,733**	**1,418,736**
Arkansas	22,000	0	22,000	9,929	38,000
Louisiana	72,011	188,991	261,002	180,975	560,821
Oklahoma	25,096	129,006	154,102	180,000	401,457
Texas	73,092	30,587	103,679	248,829	418,458
Mountain	**168,920**	**62,084**	**231,005**	**297,148**	**634,766**
Arizona	0	0	0	0	0
Colorado	29,060	20,760	49,821	27,567	93,263
Idaho	0	0	0	0	0
Montana	103,414	15,200	118,614	186,871	338,760
Nevada	0	0	0	0	0
New Mexico	10,600	12,902	23,502	18,492	91,860
Utah	0	4,010	4,010	976	5,237
Wyoming	25,846	9,212	35,058	63,242	105,646
Pacific	**151,694**	**100,410**	**252,103**	**177,131**	**527,121**
Alaska	0	0	0	0	0
California	151,694	79,110	230,803	168,066	496,332
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	0	21,300	21,300	9,065	30,789

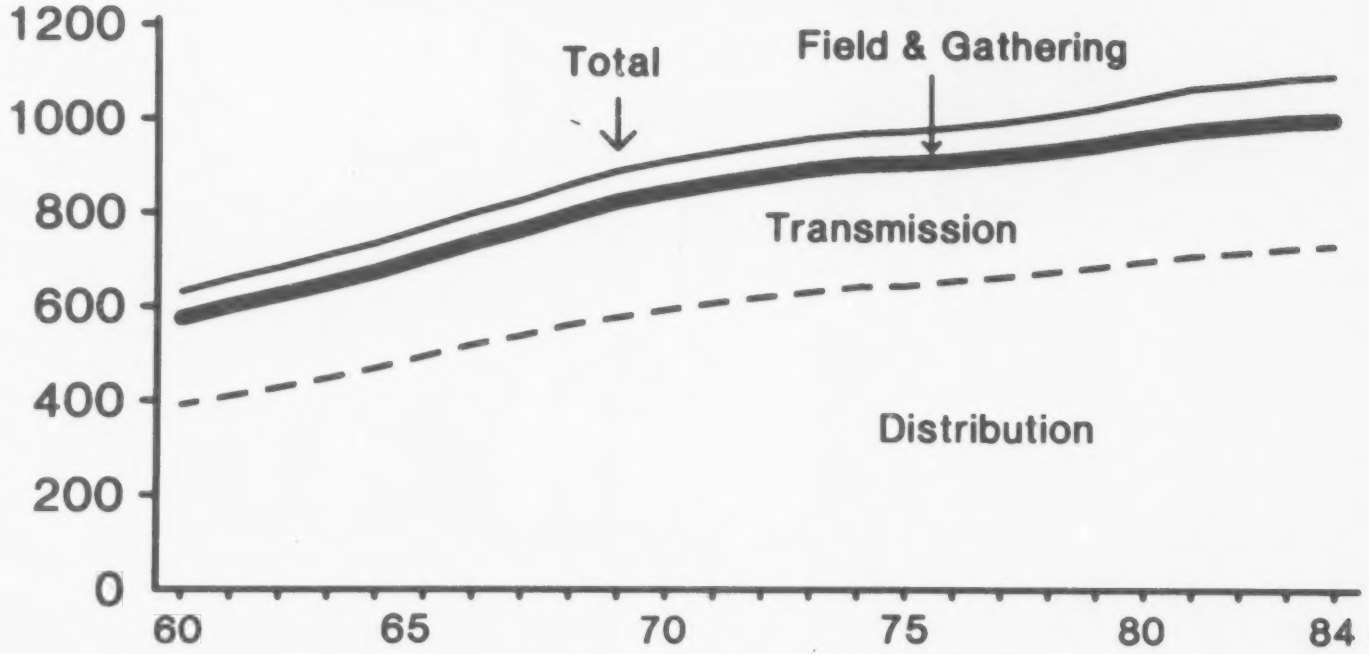
*In some states or regions, the difference between the sum of the components and Ultimate Reservoir Capacity represents presently unused capacity.

Source: Same as Table 4-1.

SECTION 5
DISTRIBUTION AND TRANSMISSION

	1984	% Change 84/83
Miles of Pipeline		
(Thousands)		
Total	1,102.2	+0.6
Field & Gathering	93.8	+2.1
Transmission	271.8	−0.6
Distribution	736.6	+1.0
Miles Installed		
(Thousands)	16.3	+7.1

GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN (THOUSANDS OF MILES)



REFERENCE: TABLE 5-1

TABLE 5-1
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY TYPE, 1960-1984[a]

(Thousands)

Year	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
1960	630.9	55.8	183.7	391.4
1961	659.0	56.7	191.9	410.4
1962	683.2	58.7	196.4	428.1
1963	709.9	60.7	200.9	448.3
1964	736.2	61.0	205.4	469.8
1965	767.5	61.7	211.3	494.5
1966	799.6	63.0	217.0	519.6
1967	828.3	63.7	225.4	539.2
1968	861.6	64.4	234.5	562.7
1969	891.6	64.9	248.1	578.6
1970	913.3	66.3	252.2	594.8
1971	931.4	66.2	254.8	610.4
1972	948.1	66.9	258.1	623.1
1973	962.9	65.9	263.1	633.8
1974	974.1	66.4	262.2	645.6
1975	979.3	68.5	262.6	648.2
1976	987.7	70.3	258.2	659.1
1977	998.9	71.5	260.5	666.9
1978	1,013.0	74.9	260.6	677.5
1979	1,029.8	77.8	263.5	688.5
1980	1,051.8	83.5	266.5	701.8
1981	1,069.8	86.2	269.5	714.1
1982	1,083.4	90.5	271.7	721.2
1983	1,095.1	91.9	273.5	729.7
1984	1,102.2	93.8	271.8	736.6
Steel	924.6	92.8	267.2	564.6
Plastic[c]	118.0	0.5	3.9	113.6
Other	59.6	0.5	0.7	58.4

a. Includes data for Alaska subsequent to 1960; excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of each year.

b. Includes 5.0 thousand miles of Underground Storage pipe in 1975, 5.3 thousand miles in 1976, 5.2 thousand miles in 1977, 6.0 thousand miles in 1978, 5.7 thousand miles in 1979, 6.2 thousand miles in 1980, 7.8 thousand miles in 1981, 5.5 thousand miles in 1982, 5.9 thousand miles in 1983 and 1984, some of which was formerly included in Field and Gathering pipe.

c. Includes fiberglass.

TABLE 5-2
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY STATE, 1960-1984[a]

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**630,950**	**767,520**	**913,267**	**979,263**	**1,051,774**	**1,095,134**	**1,102,245**
New England	**19,140**	**22,090**	**25,686**	**26,580**	**27,794**	**27,844**	**27,922**
Connecticut	4,300	4,960	5,728	5,991	6,710	6,371	6,354
Maine	390	390	705	461	395	406	409
Massachusetts	11,910	13,740	15,609	16,452	16,719	17,053	17,203
New Hampshire	630	800	1,041	1,093	1,163	1,220	1,141
Rhode Island	1,720	1,990	2,299	2,248	2,403	2,414	2,425
Vermont	190	210	304	335	404	380	390
Middle Atlantic	**92,600**	**102,580**	**111,644**	**113,993**	**116,439**	**120,262**	**120,765**
New Jersey	15,140	18,320	21,052	22,077	22,838	24,118	24,039
New York	33,020	36,580	39,955	40,535	41,394	42,110	42,288
Pennsylvania	44,440	47,680	50,637	51,381	52,207	54,034	54,438
East North Central	**113,420**	**147,640**	**178,268**	**190,172**	**200,361**	**204,074**	**205,288**
Illinois	27,770	38,750	46,683	50,252	53,375	54,120	54,268
Indiana	14,800	20,240	25,264	27,267	28,227	29,696	30,180
Michigan	21,860	30,370	37,699	40,203	44,100	44,270	44,407
Ohio	40,150	44,690	49,393	51,505	52,667	53,491	53,761
Wisconsin	8,840	13,590	19,229	20,945	21,992	22,497	22,672
West North Central	**67,640**	**82,250**	**99,536**	**106,134**	**112,901**	**115,727**	**116,396**
Iowa	9,970	13,630	16,654	17,273	17,892	18,224	18,337
Kansas	25,860	28,780	32,802	34,280	36,893	37,881	38,031
Minnesota	8,090	10,680	14,162	15,264	16,720	17,813	18,067
Missouri	11,950	15,150	18,654	20,897	21,854	21,657	21,701
Nebraska	8,910	10,300	12,627	13,333	14,079	14,304	14,345
North Dakota	1,100	1,560	2,332	2,533	2,854	3,121	3,152
South Dakota	1,760	2,150	2,305	2,554	2,609	2,727	2,763
South Atlantic	**59,100**	**74,180**	**92,738**	**100,496**	**103,960**	**108,746**	**109,324**
Delaware	830	1,160	1,270	1,322	1,336	1,466	1,477
District of Columbia	1,160	1,150	1,164	1,163	1,157	1,162	1,162
Florida	6,400	8,330	11,435	13,100	12,902	13,314	13,567
Georgia	10,580	14,600	19,569	22,679	24,676	25,816	26,389
Maryland	5,400	6,710	7,986	8,534	8,704	8,833	8,857
North Carolina	4,830	7,080	10,605	11,100	11,842	12,815	12,928
South Carolina	3,320	6,090	8,514	9,667	9,825	10,818	10,360
Virginia	6,490	8,190	10,451	10,944	11,226	11,895	12,034
West Virginia	20,090	20,870	21,764	21,987	22,292	22,627	22,550
East South Central	**44,930**	**54,390**	**65,441**	**70,345**	**73,807**	**76,770**	**77,167**
Alabama	11,380	13,860	16,607	17,832	19,556	20,197	20,210
Kentucky	13,130	15,470	18,295	19,816	19,981	20,893	20,959
Mississippi	11,420	13,460	16,403	17,056	17,911	18,422	18,522
Tennessee	9,000	11,600	14,136	15,641	16,359	17,258	17,476
West South Central	**127,120**	**150,260**	**182,752**	**194,820**	**216,394**	**230,829**	**232,147**
Arkansas	10,380	13,060	16,429	17,474	18,312	18,493	18,505
Louisiana	24,970	30,310	36,921	38,855	41,689	44,233	44,083
Oklahoma	19,590	23,850	28,532	32,798	37,132	41,079	40,945
Texas	72,180	83,040	100,870	105,693	119,261	127,024	128,614
Mountain	**44,940**	**59,000**	**71,848**	**83,184**	**97,391**	**104,459**	**105,151**
Arizona	9,630	11,120	13,379	15,197	16,669	16,988	17,112
Colorado	8,080	12,240	15,870	19,192	23,108	25,553	26,156
Idaho	1,490	2,770	3,226	3,785	4,177	4,494	4,540
Montana	5,120	5,970	6,324	7,435	8,822	8,895	8,897
Nevada	660	1,940	2,470	2,945	3,554	3,777	3,852
New Mexico	13,160	15,410	19,050	21,657	24,581	26,162	25,808
Utah	3,400	4,940	5,609	6,577	7,846	8,757	8,895
Wyoming	3,400	4,610	5,920	6,396	8,634	9,833	9,891
Pacific	**62,060**	**75,130**	**85,354**	**93,539**	**102,727**	**106,423**	**108,085**
Alaska	b	250	667	868	1,186	1,224	1,511
California	52,280	60,650	66,328	72,493	79,625	82,315	83,450
Hawaii	440	490	530	581	587	590	590
Oregon	3,940	6,360	8,014	8,838	9,709	10,201	10,335
Washington	5,400	7,380	9,815	10,759	11,620	12,093	12,199

a. Includes field, gathering, underground storage, transmission and distribution main but excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Not available.
R – Revised.

TABLE 5-3
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY STATE AND TYPE OF MAIN, 1984[a]

Division and State	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
United States	**1,102,245**	**93,780**	**271,811**	**736,654**
New England	**27,922**	**0**	**1,648**	**26,274**
Connecticut	6,354	0	493	5,861
Maine	409	0	77	332
Massachusetts	17,203	0	836	16,367
New Hampshire	1,141	0	134	1,007
Rhode Island	2,425	0	53	2,372
Vermont	390	0	55	335
Middle Atlantic	**120,765**	**7,219**	**17,621**	**95,925**
New Jersey	24,039	0	1,410	22,629
New York	42,288	574	3,715	37,999
Pennsylvania	54,438	6,645	12,496	35,297
East North Central	**205,288**	**4,343**	**35,974**	**164,971**
Illinois	54,268	92	10,037	44,139
Indiana	30,180	225	5,702	24,253
Michigan	44,407	115	7,046	37,246
Ohio	53,761	3,911	9,983	39,867
Wisconsin	22,672	0	3,206	19,466
West North Central	**116,396**	**9,420**	**40,033**	**66,943**
Iowa	18,337	87	6,008	12,242
Kansas	38,031	8,985	15,886	13,160
Minnesota	18,067	0	4,238	13,829
Missouri	21,701	25	4,320	17,356
Nebraska	14,345	113	7,476	6,756
North Dakota	3,152	194	1,147	1,811
South Dakota	2,763	16	958	1,789
South Atlantic	**109,324**	**9,413**	**22,554**	**77,357**
Delaware	1,477	0	343	1,134
District of Columbia	1,162	0	24	1,138
Florida	13,567	0	2,950	10,617
Georgia	26,389	0	5,063	21,326
Maryland	8,857	23	827	8,007
North Carolina	12,928	0	2,284	10,644
South Carolina	10,360	0	3,051	7,309
Virginia	12,034	108	2,509	9,417
West Virginia	22,550	9,282	5,503	7,765
East South Central	**77,167**	**4,300**	**27,296**	**45,571**
Alabama	20,210	7	5,286	14,917
Kentucky	20,959	4,029	7,115	9,815
Mississippi	18,522	264	9,604	8,654
Tennessee	17,476	0	5,291	12,185
West South Central	**232,147**	**37,090**	**86,035**	**109,022**
Arkansas	18,505	1,212	6,612	10,681
Louisiana	44,083	2,906	24,506	16,671
Oklahoma	40,945	12,240	11,944	16,761
Texas	128,614	20,732	42,973	64,909
Mountain	**105,151**	**21,002**	**29,300**	**54,849**
Arizona	17,112	1	5,121	11,990
Colorado	26,156	4,098	6,894	15,164
Idaho	4,540	0	1,524	3,016
Montana	8,897	2,260	3,295	3,342
Nevada	3,852	8	1,135	2,709
New Mexico	25,808	10,325	6,789	8,694
Utah	8,895	967	983	6,945
Wyoming	9,891	3,343	3,559	2,989
Pacific	**108,085**	**993**	**11,350**	**95,742**
Alaska	1,511	7	314	1,190
California	83,450	961	7,652	74,837
Hawaii	590	0	0	590
Oregon	10,335	25	1,398	8,912
Washington	12,199	0	1,986	10,213

a. Excludes 436,337 miles of service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Includes 5,937 miles of underground storage pipe.

TABLE 5-4
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN INSTALLED DURING 1984, BY STATE AND BY TYPE OF PIPE[a]

Division and State	Total[b]	Field and Gathering	Transmission Pipeline	Distribution Main			
		Steel	Steel[c]	Total	Steel	Plastic[d]	Other
United States	**16,304**	**1,057**	**2,276**	**12,971**	**3,940**	**8,909**	**122**
New England	**423**	**0**	**7**	**416**	**138**	**225**	**53**
Connecticut	121	0	0	121	39	82	0
Maine	4	0	0	4	2	2	0
Massachusetts	235	0	7	228	59	116	53
New Hampshire	38	0	0	38	26	12	0
Rhode Island	15	0	0	15	2	13	0
Vermont	10	0	0	10	10	0	0
Middle Atlantic	**1,486**	**31**	**342**	**1,113**	**307**	**799**	**7**
New Jersey	463	0	0	463	119	344	0
New York	357	15	34	308	122	186	0
Pennsylvania	666	16	308	342	66	269	7
East North Central	**2,505**	**74**	**166**	**2,265**	**934**	**1,311**	**20**
Illinois	817	0	13	804	652	152	0
Indiana	622	0	46	576	47	511	18
Michigan	355	21	56	278	9	267	2
Ohio	425	53	48	324	160	164	0
Wisconsin	286	0	3	283	66	217	0
West North Central	**1,177**	**41**	**102**	**1,034**	**220**	**813**	**1**
Iowa	189	0	3	186	55	131	0
Kansas	319	36	74	209	84	124	1
Minnesota	364	0	17	347	31	316	0
Missouri	181	0	6	175	21	154	0
Nebraska	42	0	0	42	13	29	0
North Dakota	36	4	2	30	2	28	0
South Dakota	46	1	0	45	14	31	0
South Atlantic	**1,918**	**29**	**123**	**1,766**	**984**	**754**	**28**
Delaware	16	0	0	16	0	16	0
District of Columbia	6	0	0	6	3	3	0
Florida	227	0	0	227	107	95	25
Georgia	593	0	44	549	529	20	0
Maryland	62	0	1	61	25	36	0
North Carolina	317	0	14	303	84	219	0
South Carolina	294	0	8	286	115	170	1
Virginia	221	3	23	195	101	92	2
West Virginia	182	26	33	123	20	103	0
East South Central	**718**	**34**	**91**	**593**	**216**	**377**	**0**
Alabama	233	0	66	167	37	130	0
Kentucky	160	32	12	116	79	37	0
Mississippi	123	2	13	108	26	82	0
Tennessee	202	0	0	202	74	128	0
West South Central	**3,777**	**478**	**1,194**	**2,105**	**259**	**1,833**	**13**
Arkansas	114	34	24	56	10	46	0
Louisiana	361	27	188	146	29	104	13
Oklahoma	585	135	58	392	7	385	0
Texas	2,717	282	924	1,511	213	1,298	0
Mountain	**1,768**	**340**	**110**	**1,318**	**327**	**991**	**0**
Arizona	218	1	35	182	116	66	0
Colorado	725	101	25	599	71	528	0
Idaho	49	0	0	49	3	46	0
Montana	143	74	2	67	7	60	0
Nevada	75	2	1	72	18	54	0
New Mexico	281	86	38	157	71	86	0
Utah	146	27	0	119	0	119	0
Wyoming	131	49	9	73	41	32	0
Pacific	**2,532**	**30**	**141**	**2,361**	**555**	**1,806**	**0**
Alaska	287	0	96	191	189	2	0
California	1,899	26	45	1,828	202	1,626	0
Hawaii	0	0	0	0	0	0	0
Oregon	176	4	0	172	127	45	0
Washington	170	0	0	170	37	133	0

a. Excludes service pipe. Data not adjusted to common diameter equivalent.
b. Does not include 66 miles of plastic and other pipe classified as field and gathering and transmission pipe.
c. Includes 38 miles of underground storage pipe.
d. Includes fiberglass.

TABLE 5-5
GAS UTILITY INDUSTRY REQUIREMENTS OF STEEL PIPE FOR NEW CONSTRUCTION AND MAINTENANCE AND REPAIR BY SIZE OF PIPE, 1984

(Miles)

Size of Pipe	Total	New Construction	Maintenance Repair
Normal Pipe Size—Inches			
¾ and less	973.4	836.5	136.9
1	374.8	285.5	89.3
1¼	360.8	305.3	55.5
1½	124.8	116.7	8.1
Outside Diameter—Inches			
2⅜	1,773.9	1,325.3	448.6
3½	231.2	193.9	37.3
4½	1,321.6	1,044.9	276.7
6⅝	904.0	735.6	168.4
8⅝	561.6	490.5	71.1
10¾	343.8	318.3	25.5
12¾	272.7	232.9	39.8
14	1.5	0.3	1.2
16	228.2	211.3	16.9
18	10.3	8.1	2.2
20	216.7	188.6	28.1
22	0.3	0.2	0.1
24	17.2	12.5	4.7
26	12.8	12.0	0.8
30	92.1	92.1	0.0
34	0.0	0.0	0.0
36	40.9	36.7	4.2
42	45.0	45.0	0.0
Other Sizes	0.0	0.0	0.0
Total	**7,907.6**	**6,492.2**	**1,415.4**

TABLE 5-6
GAS UTILITY INDUSTRY INSTALLED COMPRESSOR HORSEPOWER, 1960-1984

(Thousands)

Year	Total	Transmission
1960	7,843	6,359
1965	9,708	7,736
1966	10,242	8,182
1967	10,746	8,596
1968	11,438	9,146
1969	12,742	9,375
1970	13,150	9,692
1971	14,142	10,763
1972	14,506	10,976
1973	14,858	11,272
1974	15,181	11,883*
1975	15,413	12,069
1976	15,472	12,046
1977	15,553	12,105
1978	15,824	12,255
1979	16,030	12,437
1980	16,375	13,091
1981	16,601	13,270
1982	16,965	13,441
1983	16,900	13,499
1984	16,880	13,836

* Not comparable to previous years due to reclassification.

TABLE 5–7
SELECTED STATISTICS FOR MAJOR TRANSMISSION COMPANIES, 1984

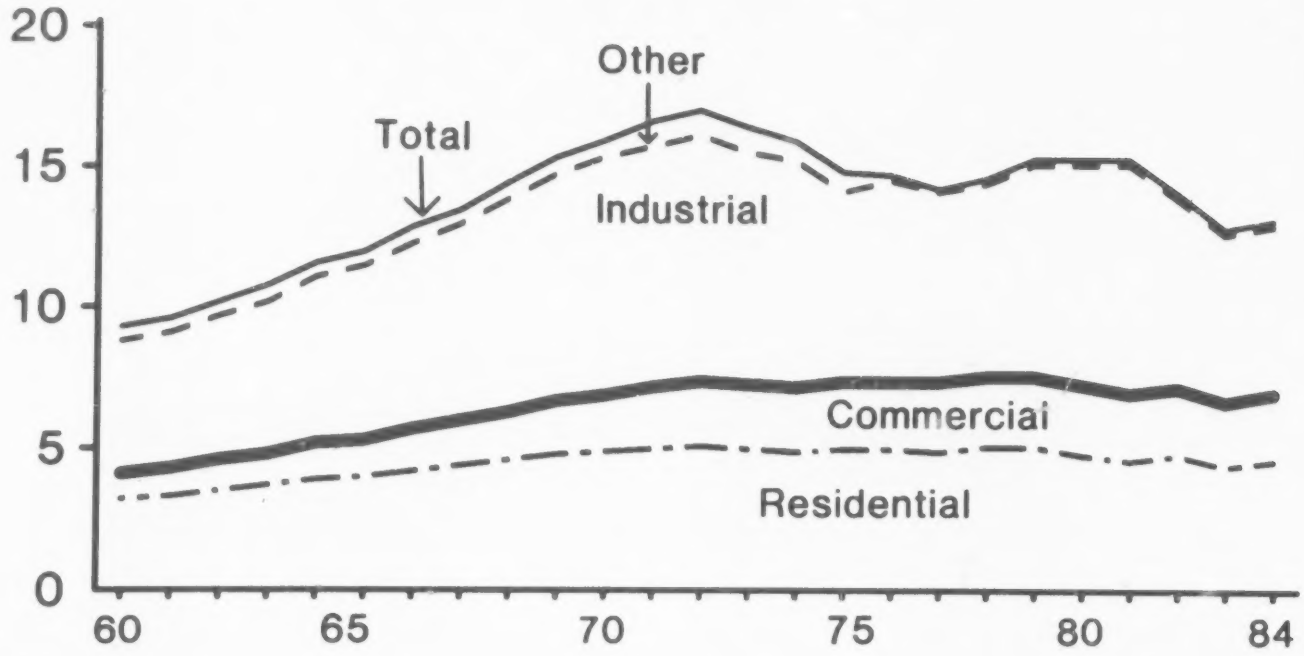
Name of Transmission System	No. of Transmission Compressor Stations	Total Miles of Transmission Pipeline	Peak Day Sendout (MMCF)	Operating Revenues ($000,000)
Algonquin Gas Transmission Co.	3	930	822	$ 760.6
ANR Pipeline Co.	37	7,723	3,432	2,652.3
Colorado Interstate Gas Co.	19	2,721	1,561	960.5
Columbia Gas Transmission Co.	114	10,625	6,758	3,246.5
Columbia Gulf Transmission Co.	13	4,188	1,710	208.0
Consolidated Gas Transmission Corp.	41	3,567	3,719	2,390.3
East Tennessee Natural Gas Co.	11	1,019	383	277.1
El Paso Natural Gas Co.	53	9,337	3,463	4,039.1
Florida Gas Transmission Co.	20	4,353	1,017	778.0
Internorth, Inc.	62	17,649	4,105	2,868.4
Midwestern Gas Transmission Co.	14	903	1,040	881.1
Mississippi River Transmission Co.	15	1,970	995	677.4
Natural Gas Pipeline Co. of America	78	8,271	4,870	3,231.4
Northwest Central Pipeline Co.	41	5,846	a	958.0
Pacific Gas Transmission Co.	12	799	1,051	1,087.5
Panhandle Eastern Pipeline Co.	70	6,803	2,167	2,013.7
South Georgia Natural Gas Co.	2	767	a	103.6
Southern Natural Gas Co.	49	7,596	2,625	1,922.3
Tenneco, Inc.	63	13,948	4,016	3,714 6
Texas Eastern Transmission Co.	67	9,565	4,337	3,412.3
Texas Gas Transmission Corp.	24	5,683	2,963	2,000.8
Transcontinental Gas Pipeline Corp.	38	10,076	7,827	3,409.6
Transwestern Pipeline Co.	193	4,434	908	1,043.6
Trunkline Gas Co.	21	3,932	1,228	1,252.2
United Gas Pipeline Co.	32	7,324	4,887	2,325.6

a. Not available.
Source: Federal Energy Regulatory Commission, FERC Form No. 2: Annual Report of Natural Gas Companies (Class A and Class B), 1984.

SECTION 6
SALES—QUANTITIES

	1984	% Change 84/83
Gas Utility Industry		
(Trillions of Btu)		
Total	13,161.7	+2.4
Residential	4,628.3	+4.0
Commercial	2,395.9	+4.3
Industrial	5,991.0	+0.4
Industrial Only	4,241.0	−2.8
Electric Generation	1,750.0	+9.0
Other	146.4	+4.4
Resale	12,437.9	−1.1

GAS UTILITY INDUSTRY SALES BY CLASS OF SERVICE (QUADRILLIONS OF BTU)



REFERENCE: TABLE 6-1

TABLE 6-1
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE
1960-1984[a]

(Trillions of Btu)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	9,287.7	3,188.1	919.8	4,709.4	470.4
1961	9,589.0	3,321.0	988.1	4,785.6	494.3
1962	10,234.8	3,536.9	1,092.9	5,100.1	504.9
1963	10,766.3	3,668.0	1,136.6	5,438.1	523.6
1964	11,591.2	3,869.7	1,273.5	5,912.0	536.0
1965	11,980.3	3,999.0	1,344.8	6,146.5	490.0
1966	12,859.1	4,175.4	1,462.8	6,653.3	567.6
1967	13,488.3	4,365.3	1,577.6	7,014.3	531.1
1968	14,472.4	4,552.7	1,704.9	7,595.1	619.7
1969	15,391.6	4,820.4	1,878.1	8,135.8	557.3
1970	16,043.5	4,923.7	2,006.6	8,439.2	674.0
1971	16,685.7	5,040.1	2,155.5	8,645.5	844.7
1972	17,082.1	5,141.8	2,275.7	8,775.7	888.8
1973	16,479.9	4,993.6	2,280.8	8,370.8	834.7
1974	16,000.3	4,864.8	2,293.4	8,153.2	689.0
1975	14,862.9	4,991.0	2,386.8	6,837.1	648.0
1976	14,813.5	5,014.2	2,422.6	7,192.0	184.6
1977	14,340.9	4,946.3	2,409.4	6,796.4	188.9
1978	14,748.4	5,106.7	2,499.5	6,931.5	210.7
1979	15,440.3	5,083.1	2,485.8	7,641.4	230.0
1980	15,413.2	4,826.1	2,453.3	7,956.6	177.2
1981	15,374.8	4,609.7	2,375.4	8,239.3	150.4
1982	14,182.7	4,769.8	2,471.3	6,794.3	147.3
1983[R]	12,857.5	4,449.6	2,298.2	5,969.4	140.2
1984	13,161.7	4,628.3	2,395.9	5,991.0	146.4

a. Excludes data for Alaska prior to 1961.
b. Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.
R - Revised.

TABLE 6-2
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE AND TYPE OF COMPANY 1978-1984[a]

(Trillions of Btu)

	1978	1979	1980	1981	1982	1983[R]	1984
Distribution							
Total	4,026	4,151	3,983	3,136	2,981	2,925	3,078
Residential	1,873	1,797	1,718	1,240	1,259	1,282	1,358
Commercial	880	899	901	737	771	727	780
Industrial	1,246	1,424	1,334	1,145	938	897	919
Other	28	31	30	14	13	20	21
Transmission							
Total	2,016	2,059	2,616	2,689	2,087	1,826	1,711
Residential	2	2	2	1	1	1	1
Commercial	4	4	8	7	7	3	4
Industrial	1,978	2,035	2,577	2,657	2,055	1,806	1,687
Other	32	19	29	24	24	17	20
Integrated							
Total	4,411	4,724	4,423	5,197	4,910	4,203	4,290
Residential	1,428	1,458	1,359	1,719	1,799	1,560	1,626
Commercial	704	698	655	778	804	739	782
Industrial	2,209	2,455	2,359	2,645	2,254	1,864	1,841
Other	70	113	50	55	53	40	41
Combination							
Total	3,631	3,807	3,705	3,681	3,543	3,268	3,419
Residential	1,485	1,519	1,454	1,369	1,426	1,335	1,358
Commercial	781	756	763	725	755	703	690
Industrial	1,311	1,491	1,446	1,549	1,325	1,192	1,331
Other	54	42	42	38	38	39	39
Municipals							
Total	664	701	686	672	662	635	664
Residential	319	308	293	281	285	271	286
Commercial	131	129	126	128	134	126	141
Industrial	187	236	241	244	224	212	213
Other	27	28	26	19	20	25	25

a. All electric generation is included in the Industrial category.
R – Revised.
Note: This table depicts total sales as shown on Table 6-1, by company type. Also, data by company type not directly comparable from year to year due to acquisitions and mergers. See page ix.

SALES—QUANTITIES

TABLE 6-3
GAS UTILITY INDUSTRY SALES, BY QUARTER AND CLASS OF SERVICE
1960-1984

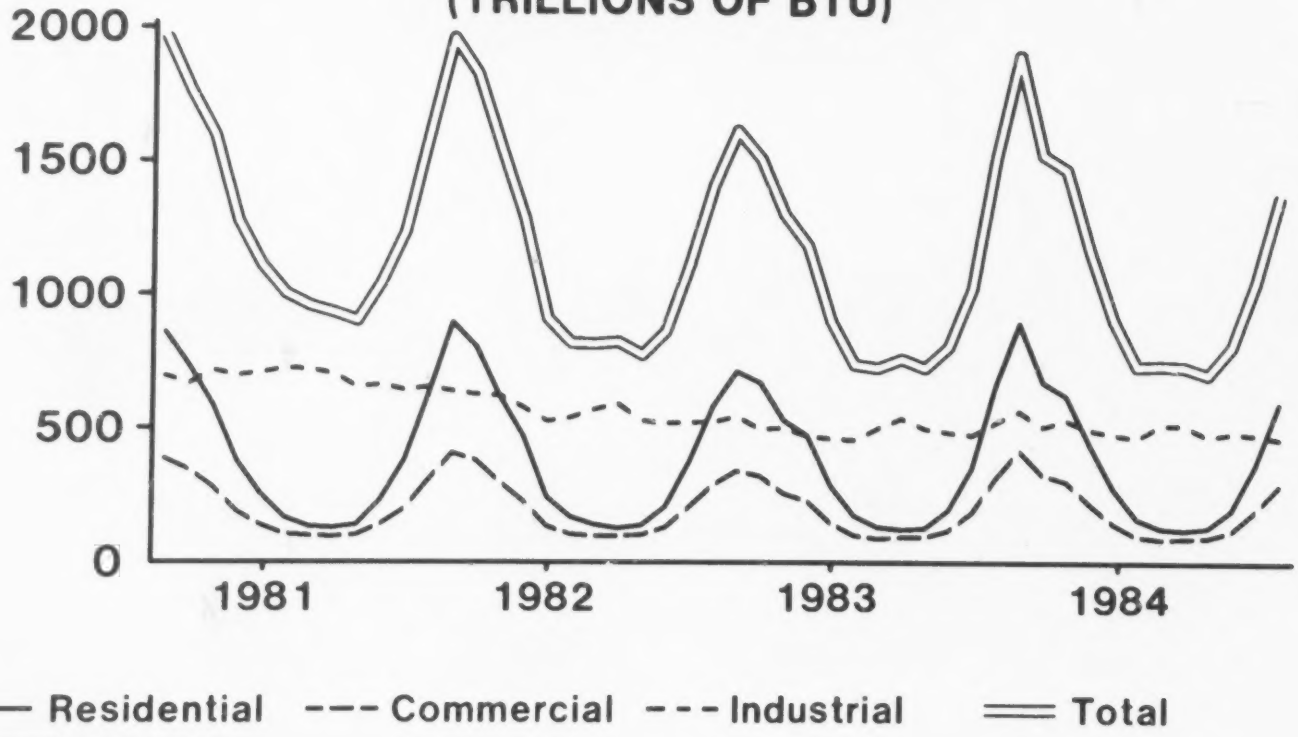
(Trillions of Btu)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	3,124.9	1,459.0	404.6	1,119.7	141.6
Second	2,171.3	679.8	188.0	1,197.1	106.4
Third	1,676.1	265.5	92.7	1,222.1	95.8
Fourth	2,309.7	780.0	232.8	1,170.3	126.6
1965					
First	3,946.6	1,811.2	575.2	1,424.3	135.9
Second	2,818.1	878.9	291.2	1,538.8	109.2
Third	2,212.1	346.1	144.9	1,603.3	117.8
Fourth	3,001.0	961.1	332.8	1,580.0	127.1
1970					
First	5,262.3	2,286.9	867.7	1,939.2	168.6
Second	3,808.1	1,024.3	423.8	2,201.4	158.4
Third	3,041.5	420.7	218.6	2,236.1	166.0
Fourth	3,931.6	1,191.8	496.5	2,062.5	181.0
1975					
First	4,931.5	2,192.8	970.4	1,598.7	169.6
Second	3,520.9	1,137.7	536.3	1,715.9	131.0
Third	2,794.9	474.9	301.2	1,842.2	176.6
Fourth	3,615.6	1,185.6	579.0	1,680.2	170.8
1977					
First	5,010.3	2,395.4	1,019.4	1,534.6	61.0
Second	3,047.7	855.5	448.8	1,701.6	41.8
Third	2,602.9	425.6	314.7	1,822.3	40.3
Fourth	3,680.0	1,269.8	626.5	1,737.9	45.8
1978					
First	5,290.3	2,460.1	1,098.9	1,658.1	73.1
Second	3,220.5	960.2	491.4	1,724.8	44.2
Third	2,613.5	426.6	294.7	1,851.8	40.4
Fourth	3,624.1	1,259.9	614.5	1,696.8	53.0
1979					
First	5,479.5	2,462.8	1,095.8	1,828.2	92.7
Second	3,366.0	965.7	486.3	1,870.8	43.2
Third	2,715.4	431.2	283.8	1,966.5	33.9
Fourth	3,879.4	1,223.4	619.9	1,975.9	60.2
1980					
First	5,433.8	2,218.7	1,031.1	2,118.8	65.2
Second	3,258.8	914.7	464.5	1,845.8	33.8
Third	2,753.6	405.4	300.0	2,019.5	28.7
Fourth	3,967.0	1,287.3	657.7	1,972.5	49.5
1981					
First	5,311.9	2,170.9	1,007.6	2,075.6	57.8
Second	3,385.2	797.5	430.2	2,127.5	30.0
Third	2,792.7	399.5	293.6	2,076.8	22.8
Fourth	3,885.0	1,241.8	644.0	1,959.4	39.8
1982					
First	5,350.7	2,318.2	1,086.6	1,888.2	57.7
Second	3,020.3	880.9	465.1	1,645.6	28.7
Third	2,416.1	404.4	297.2	1,692.4	22.1
Fourth	3,395.6	1,166.3	622.4	1,568.1	38.8
1983[R]					
First	4,439.2	1,917.5	921.9	1,547.0	52.8
Second	2,835.9	935.1	477.3	1,393.3	30.2
Third	2,220.5	382.2	277.4	1,540.6	20.3
Fourth	3,361.9	1,214.9	621.6	1,488.5	36.9
1984					
First	4,918.2	2,199.7	1,050.1	1,608.3	60.1
Second	2,821.1	882.5	464.2	1,446.0	28.4
Third	2,182.9	383.7	276.5	1,504.2	18.5
Fourth	3,239.5	1,162.4	605.2	1,432.5	39.4

*Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.
R–Revised.

CHART 6-2

UTILITY SALES OF NATURAL GAS TO CONSUMERS BY MONTHS, 1981 - 1984 (TRILLIONS OF BTU)



REFERENCE: TABLE 6-4

TABLE 6-4
GAS UTILITY INDUSTRY TOTAL SALES, BY MONTH, 1960-1984

(Trillions of Btu)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
1960	1,031.3	1,015.3	1,078.4	860.1	693.6	617.5	557.4	561.6	557.0	607.4	753.5	948.9	9,282.0
1965	1,304.0	1,329.2	1,313.4	1,168.2	874.9	775.0	748.0	732.8	731.3	823.5	979.4	1,197.9	11,977.6
1970	1,865.8	1,733.0	1,663.0	1,527.7	1,225.7	1,054.3	1,013.5	1,020.2	1,007.5	1,081.1	1,283.7	1,566.4	16,041.9
1971	1,886.8	1,873.5	1,769.5	1,559.1	1,312.2	1,145.2	1,053.3	1,037.4	1,023.7	1,100.9	1,305.7	1,618.4	16,685.7
1972	1,833.1	1,908.1	1,758.3	1,542.6	1,292.5	1,176.1	1,056.1	1,125.9	1,094.5	1,120.0	1,378.7	1,796.2	17,082.1
1973	1,909.4	1,752.8	1,645.3	1,500.1	1,332.1	1,143.8	1,104.8	1,069.0	1,063.1	1,136.5	1,306.7	1,516.3	16,479.9
1974	1,847.6	1,707.2	1,630.7	1,493.6	1,251.6	1,119.9	1,050.8	1,034.9	992.3	1,115.2	1,219.8	1,536.7	16,000.3
1975	1,709.5	1,633.6	1,588.4	1,455.3	1,120.8	944.8	924.7	934.8	935.4	1,009.2	1,102.8	1,503.6	14,862.9
1976	1,797.5	1,644.6	1,451.0	1,252.2	1,099.8	965.6	913.1	900.8	899.1	996.4	1,278.3	1,614.7	14,813.5
1977	1,901.9	1,682.7	1,425.7	1,168.4	974.8	904.5	875.8	866.5	860.7	976.7	1,153.5	1,549.8	14,340.9
1978	1,808.7	1,834.1	1,647.5	1,237.7	1,061.4	921.4	895.1	878.8	839.6	947.7	1,151.1	1,525.5	14,748.4
1979	1,925.1	1,923.8	1,630.5	1,356.3	1,074.6	934.9	903.7	920.9	891.3	1,038.9	1,253.4	1,587.0	15,440.4
1980	1,834.5	1,871.1	1,728.2	1,315.2	1,024.5	919.1	928.3	919.0	906.3	1,024.6	1,286.9	1,655.5	15,413.2
1981	1,957.2	1,759.7	1,595.0	1,274.4	1,107.7	1,003.1	957.8	933.4	901.5	1,045.1	1,234.9	1,605.0	15,374.8
1982	1,964.4	1,831.3	1,555.0	1,288.9	911.8	819.6	816.7	823.6	775.8	864.7	1,117.5	1,413.4	14,182.7
1983[R]	1,619.9	1,513.6	1,305.7	1,189.1	906.1	740.7	728.5	762.7	729.3	809.6	1,029.7	1,522.6	12,857.5
1984	1,907.9	1,532.8	1,477.5	1,172.3	912.8	736.0	739.9	736.2	706.8	812.5	1,054.5	1,372.5	13,161.7

R – Revised.

TABLE 6-5
GAS UTILITY INDUSTRY SALES, BY STATE, 1960-1984[a]

(Trillions of Btu)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**9,287.7**	**11,980.3**	**16,043.5**	**14,862.9**	**15,413.2**	**12,857.5**	**13,161.7**
New England	**120.5**	**172.0**	**236.7**	**243.5**	**298.2**	**317.9**	**344.8**
Connecticut	31.5	44.0	61.4	61.0	73.4	75.9	80.5
Maine	1.3	1.3	1.8	2.0	2.2	2.4	2.4
Massachusetts	72.4	105.0	139.5	145.9	182.5	196.7	213.7
New Hampshire	3.0	4.3	6.7	7.8	9.5	9.6	10.5
Rhode Island	11.9	16.9	25.2	23.4	26.4	28.7	32.6
Vermont	0.4	0.5	2.1	3.4	4.1	4.6	5.1
Middle Atlantic	**993.9**	**1,293.4**	**1,651.0**	**1,495.1**	**1,658.2**	**1,515.5**	**1,613.6**
New Jersey	125.9	194.1	294.9	257.9	322.7	337.2	344.8
New York	358.0	475.6	595.9	581.9	600.8	589.4	678.5
Pennsylvania	510.0	623.7	760.2	655.4	734.7	588.9	590.3
East North Central	**1,872.4**	**2,724.4**	**3,896.4**	**3,749.5**	**3,658.1**	**3,031.3**	**3,147.8**
Illinois	509.5	746.5	1,140.3	1,112.4	1,100.3	925.5	996.2
Indiana	203.9	344.6	505.0	458.8	475.9	411.8	438.4
Michigan	357.2	545.3	839.4	885.8	850.0	699.9	711.3
Ohio	712.5	891.0	1,084.9	929.8	888.0	695.2	697.4
Wisconsin	89.3	197.0	326.8	362.7	343.9	299.0	304.4
West North Central	**1,040.4**	**1,316.0**	**1,743.7**	**1,592.4**	**1,412.3**	**1,133.1**	**1,182.2**
Iowa	157.7	205.6	292.5	298.8	255.8	213.6	225.5
Kansas	305.6	350.4	459.5	410.4	364.6	258.8	261.0
Minnesota	160.4	230.9	324.3	295.0	267.1	235.7	248.7
Missouri	257.2	333.2	421.0	344.5	326.8	257.9	266.3
Nebraska	126.7	153.7	197.8	187.2	152.5	122.6	134.6
North Dakota	8.5	15.6	18.9	24.7	21.6	21.2	21.7
South Dakota	24.3	26.6	29.7	31.8	23.9	23.3	24.5
South Atlantic	**649.8**	**871.8**	**1,311.1**	**1,106.1**	**1,255.7**	**1,153.9**	**1,197.6**
Delaware	8.9	16.6	24.3	19.3	22.7	24.2	25.3
District of Columbia	18.5	21.8	27.1	24.8	27.6	27.8	31.0
Florida	91.1	144.2	218.7	127.4	232.2	223.2	238.5
Georgia	188.5	210.3	333.8	312.5	299.7	280.3	295.3
Maryland	65.9	96.8	145.1	138.8	154.6	134.8	137.1
North Carolina	41.6	73.9	151.2	104.8	143.2	132.9	138.4
South Carolina	40.6	73.9	120.1	118.3	112.3	96.9	104.6
Virginia	64.3	91.3	133.9	116.0	134.8	133.5	136.3
West Virginia	130.4	143.0	156.9	144.3	128.6	100.2	91.2
East South Central	**600.1**	**729.7**	**995.4**	**752.8**	**807.9**	**663.0**	**711.8**
Alabama	180.3	224.8	290.0	227.9	224.6	183.8	193.7
Kentucky	126.6	142.1	189.9	180.0	175.9	149.1	158.8
Mississippi	146.2	177.1	265.6	141.3	191.5	145.4	161.8
Tennessee	147.0	185.7	249.9	203.5	216.0	184.7	197.5
West South Central	**2,216.5**	**2,408.5**	**3,031.0**	**2,973.6**	**3,534.9**	**2,720.7**	**2,499.6**
Arkansas	177.3	228.6	339.9	219.4	207.4	182.7	174.5
Louisiana	536.8	592.0	742.1	457.3	515.2	319.2	302.2
Oklahoma	248.8	255.0	275.6	417.9	472.3	322.8	320.1
Texas	1,253.6	1,332.9	1,673.4	1,878.9	2,340.0	1,896.0	1,702.8
Mountain	**576.4**	**703.8**	**926.1**	**928.6**	**841.9**	**643.7**	**671.2**
Arizona	110.9	127.3	168.1	144.4	136.4	106.5	103.4
Colorado	160.0	196.5	253.6	269.2	242.3	190.5	206.3
Idaho	22.0	34.8	43.1	51.2	45.4	30.3	32.3
Montana	51.3	67.4	78.8	79.8	54.1	43.0	43.4
Nevada	14.2	29.7	56.0	61.3	62.1	40.6	41.4
New Mexico	112.9	106.2	135.6	142.5	125.7	85.7	85.6
Utah	73.1	101.8	119.1	119.4	121.7	103.8	115.0
Wyoming	32.0	40.1	71.8	60.8	54.3	43.5	43.7
Pacific	**1,217.7**	**1,760.7**	**2,252.1**	**2,021.3**	**1,945.9**	**1,678.4**	**1,793.1**
Alaska	b	5.2	16.6	30.7	32.3	37.5	38.0
California	1,115.4	1,580.1	1,986.8	1,735.6	1,700.0	1,464.5	1,547.4
Hawaii	1.6	2.0	2.8	3.6	3.5	3.2	3.1
Oregon	32.0	59.0	88.1	86.8	76.4	64.5	76.0
Washington	68.7	114.4	157.8	164.6	133.8	108.8	128.7

a. Excludes sales for resale.
b. Not available.
R - Revised.

TABLE 6-6
GAS UTILITY INDUSTRY SALES OF GAS FOR RESALE, BY STATE
1960-1984

(Trillions of Btu)

Division and State	1960*	1965*	1970	1975	1980	1983R	1984
United States	**9,257.8**	**12,566.4**	**17,575.6**	**14,504.5**	**15,705.1**	**12,571.5**	**12,437.9**
New England	**135.5**	**194.0**	**276.0**	**271.5**	**299.8**	**305.9**	**335.2**
Connecticut			83.0	82.7	76.4	75.1	81.7
Maine			0.0	0.0	0.0	0.0	0.0
Massachusetts			156.6	160.0	188.8	195.9	214.7
New Hampshire			8.6	5.8	6.8	7.1	7.8
Rhode Island			27.8	21.8	27.9	27.8	31.0
Vermont			0.0	1.3	0.0	0.0	0.0
Middle Atlantic	**1,337.4**	**1,827.4**	**2,433.3**	**1,901.6**	**2,334.0**	**2,074.7**	**2,131.6**
New Jersey			491.9	370.2	510.6	554.9	549.8
New York			802.5	572.2	707.5	670.6	696.2
Pennsylvania			1,138.9	959.2	1,115.9	849.1	885.7
East North Central	**1,999.8**	**3,296.3**	**5,249.0**	**4,542.8**	**4,442.0**	**3,398.6**	**3,455.4**
Illinois			1,688.6	1,537.1	1,613.3	1,305.7	1,331.1
Indiana			513.6	406.8	461.4	350.9	410.2
Michigan			698.5	759.4	615.8	470.1	479.2
Ohio			1,892.4	1,356.1	1,315.3	951.1	886.1
Wisconsin			455.9	483.4	436.1	320.9	348.8
West North Central	**759.7**	**975.2**	**1,306.9**	**1,144.5**	**1,043.9**	**876.1**	**887.0**
Iowa			271.0	259.7	208.9	164.4	165.9
Kansas			206.4	169.7	149.4	124.5	124.0
Minnesota			272.6	239.0	239.1	203.1	212.1
Missouri			405.2	338.0	337.8	284.2	290.6
Nebraska			124.7	111.7	86.4	77.3	74.6
North Dakota			5.2	5.5	4.9	5.4	2.5
South Dakota			21.8	20.8	17.5	17.1	17.4
South Atlantic	**1,223.6**	**1,605.2**	**1,981.1**	**1,372.5**	**1,470.3**	**1,199.2**	**1,115.4**
Delaware			1.1	1.2	1.2	1.5	1.4
District of Columbia			0.0	0.0	0.0	0.0	0.0
Florida			63.4	82.7	94.7	91.7	94.4
Georgia			327.0	315.5	308.7	293.4	295.0
Maryland			183.1	151.0	184.5	137.9	108.3
North Carolina			157.9	118.5	165.8	137.3	151.5
South Carolina			166.5	127.6	135.2	96.6	99.4
Virginia			218.3	181.9	209.1	238.3	167.5
West Virginia			863.8	394.1	371.2	202.3	198.0
East South Central	**1,009.5**	**1,116.2**	**1,573.5**	**1,178.0**	**1,256.5**	**994.1**	**1,060.8**
Alabama			237.0	219.3	219.8	185.6	179.1
Kentucky			417.6	238.4	237.3	185.0	197.2
Mississippi			349.3	263.1	289.1	213.8	231.7
Tennessee			569.6	457.3	510.3	409.8	452.8
West South Central	**1,199.7**	**1,136.4**	**1,497.3**	**1,215.9**	**2,007.4**	**1,389.1**	**1,096.7**
Arkansas			22.6	16.1	16.0	14.0	13.7
Louisiana			854.6	569.2	661.9	515.3	398.9
Oklahoma			166.6	148.6	206.2	157.4	113.3
Texas			453.6	482.1	1,123.3	702.4	570.9
Mountain	**1,304.2**	**1,562.0**	**2,021.0**	**1,901.8**	**1,871.0**	**1,488.3**	**1,485.6**
Arizona			1,477.8	1,341.0	1,370.5	1,093.8	1,144.1
Colorado			249.0	279.6	261.8	208.3	208.7
Idaho			73.0	84.2	66.7	50.8	52.0
Montana			7.5	7.7	7.6	4.9	4.9
Nevada			5.8	9.5	9.9	9.2	9.7
New Mexico			104.9	71.8	58.6	52.0	18.6
Utah			21.3	7.4	8.4	4.1	2.9
Wyoming			81.6	100.6	87.5	65.2	43.7
Pacific	**288.4**	**853.7**	**1,237.6**	**975.9**	**980.1**	**845.4**	**870.1**
Alaska			0.0	0.0	27.4	0.0	0.0
California			680.5	346.5	436.5	425.7	435.7
Hawaii			0.0	0.0	0.0	0.0	0.0
Oregon			399.9	470.2	388.3	310.4	305.7
Washington			157.2	159.1	127.8	109.3	128.8

*Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.
R - Revised.

TABLE 6-7
GAS UTILITY INDUSTRY SALES, BY STATE AND CLASS OF SERVICE, 1984

(Trillions of Btu)

Division and State	Total	Class of Service					Average Btu Value
		Residential	Commercial	Industrial	Electric Generation	Other	
United States	**13,161.7**	**4,628.3**	**2,395.9**	**4,241.0**	**1,750.0**	**146.4**	**1,026.7**
New England	**344.8**	**148.0**	**86.1**	**68.1**	**39.5**	**3.1**	**1,028.3**
Connecticut	80.5	33.7	25.3	21.3	0.0	0.1	1,029.2
Maine	2.4	0.5	1.1	0.8	0.0	0.0	1,030.1
Massachusetts	213.7	92.0	49.4	34.0	35.7	2.5	1,000.0
New Hampshire	10.5	4.7	4.0	1.7	0.0	0.1	1,011.2
Rhode Island	32.6	15.5	5.3	8.0	3.8	*	1,030.8
Vermont	5.1	1.5	1.0	2.3	0.0	0.3	993.0
Middle Atlantic	**1,613.6**	**775.4**	**326.6**	**390.1**	**80.6**	**41.0**	**1,026.7**
New Jersey	344.8	156.9	86.4	81.4	19.9	0.1	1,034.6
New York	678.5	345.8	121.7	123.4	59.8	27.8	1,020.5
Pennsylvania	590.3	272.6	118.5	185.3	0.8	13.1	1,029.2
East North Central	**3,147.8**	**1,458.3**	**673.7**	**995.7**	**10.5**	**9.6**	**1,018.7**
Illinois	996.2	482.6	229.7	277.1	6.5	0.2	1,024.5
Indiana	438.4	155.2	71.0	210.5	0.2	1.5	990.9
Michigan	711.3	343.5	162.9	203.1	1.3	0.5	1,016.6
Ohio	697.4	363.1	153.8	173.0	0.4	7.1	1,035.0
Wisconsin	304.4	113.9	56.3	131.9	2.0	0.2	1,008.0
West North Central	**1,182.2**	**466.3**	**290.0**	**398.6**	**20.4**	**6.9**	**1,004.1**
Iowa	225.5	80.2	49.9	93.2	1.9	0.3	1,010.0
Kansas	261.0	79.5	47.7	116.4	14.0	3.5	995.4
Minnesota	248.7	101.7	55.3	88.9	1.8	0.9	1,006.6
Missouri	266.3	134.1	80.5	48.4	1.6	1.8	1,015.3
Nebraska	134.6	49.8	38.4	44.9	1.1	0.4	996.4
North Dakota	21.7	10.0	10.5	1.1	*	*	1,000.0
South Dakota	24.5	11.1	7.7	5.6	*	0.1	1,001.2
South Atlantic	**1,197.6**	**348.2**	**247.8**	**473.7**	**120.0**	**7.9**	**1,033.7**
Delaware	25.3	7.1	4.0	13.0	0.0	1.2	1,035.0
District of Columbia	31.0	13.5	17.5	0.0	0.0	0.0	1,023.0
Florida	238.5	15.6	31.3	69.1	119.0	3.6	1,047.8
Georgia	295.3	98.4	57.4	138.3	0.7	0.5	1,026.7
Maryland	137.1	70.5	33.1	33.3	0.0	0.1	1,031.3
North Carolina	138.4	33.7	26.2	78.2	0.2	0.1	1,034.0
South Carolina	104.6	19.1	17.4	67.7	0.0	0.4	1,025.1
Virginia	136.3	47.3	39.6	47.4	0.0	2.0	1,030.2
West Virginia	91.2	43.0	21.2	26.7	0.1	0.1	1,041.2
East South Central	**711.8**	**193.5**	**119.2**	**331.6**	**53.6**	**13.9**	**1,028.4**
Alabama	193.7	51.8	27.7	113.4	0.1	0.7	1,030.4
Kentucky	158.8	67.6	30.7	54.8	0.0	5.7	1,015.2
Mississippi	161.8	28.7	14.1	60.6	53.5	4.9	1,030.5
Tennessee	197.5	45.4	46.6	102.9	*	2.6	1,035.9
West South Central	**2,499.6**	**425.5**	**237.8**	**1,012.9**	**777.5**	**46.0**	**1,034.4**
Arkansas	174.5	46.8	29.5	77.2	20.8	0.3	1,016.1
Louisiana	302.2	69.2	26.3	142.0	49.4	15.4	1,052.6
Oklahoma	320.1	82.6	44.3	178.3	14.4	0.5	1,015.8
Texas	1,702.8	226.9	137.7	615.4	692.9	29.9	1,036.9
Mountain	**671.2**	**261.1**	**166.1**	**182.9**	**45.6**	**15.5**	**1,017.5**
Arizona	103.4	28.8	21.3	34.5	16.5	2.2	1,048.1
Colorado	206.3	93.4	68.5	38.7	5.3	0.5	996.5
Idaho	32.3	7.7	8.9	15.7	0.0	0.0	1,046.1
Montana	43.4	19.6	13.1	8.8	0.1	1.9	975.8
Nevada	41.4	12.7	12.3	5.9	10.0	0.5	1,028.0
New Mexico	85.6	29.5	15.4	16.6	13.7	10.4	1,060.7
Utah	115.0	55.1	16.7	43.2	0.0	*	1,000.0
Wyoming	43.7	14.3	9.8	19.5	0.0	0.1	1,020.8
Pacific	**1,793.1**	**552.0**	**248.8**	**387.4**	**602.4**	**2.6**	**1,042.8**
Alaska	38.0	11.2	3.9	6.0	16.8	0.0	1,000.0
California	1,547.4	489.9	193.6	276.1	585.6	2.2	1,044.0
Hawaii	3.1	0.6	0.6	1.9	0.0	0.0	1,025.9
Oregon	76.0	20.2	17.5	38.2	*	0.0	1,037.5
Washington	128.7	30.1	33.1	65.2	0.0	0.4	1,044.8

*–Less than 0.05 trillion Btu.

TABLE 6-8
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS SALES BY STATE, 1984

(Trillions of Btu)

Division and State	Commercial			Industrial[a]		
	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**2,395.9**	**2,230.9**	**165.0**	**4,241.0**	**2,404.2**	**1,836.8**
New England	**86.1**	**74.6**	**11.5**	**68.1**	**29.1**	**39.0**
Connecticut	25.3	17.2	8.1	21.3	10.6	10.7
Maine	1.1	1.1	0.0	0.8	0.6	0.2
Massachusetts	49.4	46.1	3.3	34.0	15.0	19.0
New Hampshire	4.0	4.0	0.0	1.7	0.6	1.1
Rhode Island	5.3	5.2	0.1	8.0	2.4	5.6
Vermont	1.0	1.0	0.0	2.3	0.1	2.2
Middle Atlantic	**326.6**	**309.7**	**16.9**	**390.1**	**261.0**	**129.1**
New Jersey	86.4	78.2	8.2	81.4	38.2	43.2
New York	121.7	117.0	4.7	123.4	74.5	49.0
Pennsylvania	118.5	114.5	4.1	185.3	148.3	37.0
East North Central	**673.7**	**657.9**	**15.9**	**995.7**	**807.3**	**188.4**
Illinois	229.7	229.1	0.6	277.1	233.6	43.6
Indiana	71.0	66.3	4.7	210.5	186.2	24.3
Michigan	162.9	161.5	1.4	203.1	171.3	31.8
Ohio	153.8	152.5	1.3	173.0	162.9	10.1
Wisconsin	56.3	48.4	7.9	131.9	53.3	78.6
West North Central	**290.0**	**236.2**	**53.7**	**398.6**	**162.1**	**236.5**
Iowa	49.9	41.7	8.2	93.2	63.8	29.4
Kansas	47.7	31.2	16.4	116.4	27.2	89.2
Minnesota	55.3	46.6	8.7	88.9	31.1	57.9
Missouri	80.5	67.2	13.3	48.4	16.7	31.8
Nebraska	38.4	34.7	3.7	44.9	22.2	22.7
North Dakota	10.5	7.7	2.8	1.1	b	1.1
South Dakota	7.7	7.1	0.6	5.6	1.2	4.5
South Atlantic	**247.8**	**216.9**	**30.8**	**473.7**	**228.0**	**245.8**
Delaware	4.0	3.8	0.2	13.0	9.1	3.9
District of Columbia	17.5	11.8	5.7	0.0	0.0	0.0
Florida	31.3	28.4	2.9	69.1	15.5	53.6
Georgia	57.4	57.3	0.1	138.3	16.5	121.8
Maryland	33.1	23.6	9.5	33.3	23.6	9.8
North Carolina	26.2	26.2	0.0	78.2	73.0	5.2
South Carolina	17.4	13.5	3.9	67.7	30.4	37.3
Virginia	39.6	32.1	7.5	47.4	33.3	14.1
West Virginia	21.2	20.3	0.9	26.7	26.6	0.1
East South Central	**119.2**	**109.5**	**9.7**	**331.6**	**201.7**	**129.9**
Alabama	27.7	23.8	3.9	113.4	63.7	49.7
Kentucky	30.7	28.6	2.1	54.8	30.7	24.0
Mississippi	14.1	14.1	b	60.6	58.1	2.4
Tennessee	46.6	42.9	3.7	102.9	49.1	53.8
West South Central	**237.8**	**232.3**	**5.6**	**1,012.9**	**565.5**	**447.4**
Arkansas	29.5	29.3	0.1	77.2	64.7	12.5
Louisiana	26.3	26.2	0.1	142.0	106.8	35.1
Oklahoma	44.3	40.7	3.6	178.3	85.7	92.6
Texas	137.7	136.0	1.7	615.4	308.3	307.2
Mountain	**166.1**	**165.1**	**0.9**	**182.9**	**88.7**	**94.2**
Arizona	21.3	21.3	0.0	34.5	34.5	b
Colorado	68.5	68.2	0.3	38.7	4.6	34.1
Idaho	8.9	8.9	0.0	15.7	15.0	0.7
Montana	13.1	12.8	0.3	8.8	1.1	7.7
Nevada	12.3	12.3	0.0	5.9	5.9	0.0
New Mexico	15.4	15.2	0.2	16.6	16.4	0.2
Utah	16.7	16.7	0.0	43.2	7.8	35.4
Wyoming	9.8	9.8	b	19.5	3.4	16.1
Pacific	**248.8**	**228.8**	**20.0**	[illegible]	**60.9**	**326.6**
Alaska	3.9	3.9	0.0	[illegible]	6.0	0.0
California	193.6	183.8	9.9	276.1	15.2	260.9
Hawaii	0.6	0.4	0.2	1.9	1.9	0.0
Oregon	17.5	17.0	0.5	38.2	13.5	24.7
Washington	33.1	23.7	9.4	65.2	24.2	41.0

a. Does not include electric generation. See Table 6-13.
b. Less than 0.05 trillion Btu.

TABLE 6-9
GAS UTILITY INDUSTRY SALES
BY TYPE OF INDUSTRY CLASSIFICATION, 1960-1984

(Trillions of Btu)

Industry Classification	1960	1965	1970	1975	1980	1983	1984
Agriculture, forestry and fisheries	10.8	12.0	33.0	49.7	47.1	31.5	46.6
Petroleum and natural gas production	48.3	97.8	101.0	83.8	32.2	42.0	49.5
Other mining	44.8	69.8	59.8	49.3	55.6	36.0	27.1
Electric services[a]	1,420.4	1,734.2	2,588.6	1,685.2	2,520.5	1,973.8	2,160.2
Other transportation, communications, and public utilities	22.4	38.5	96.2	95.9	92.5	81.7	97.7
Hotels, rooming houses, camps	16.2	33.5	67.3	77.8	27.8	30.3	32.8
Laundries, cleaning and dyeing	4.0	16.3	21.5	24.3	22.0	27.4	27.9
Other services	34.2	70.1	175.1	236.7	309.5	362.8	382.6
Other non-manufacturing	43.1	74.9	198.6	187.5	151.8	238.4	261.7
Ordnance	14.1	21.2	35.4	b	b	b	b
Food and kindred products	167.8	243.0	330.5	338.9	320.2	279.8	287.8
Textile products, apparel, fabrics, etc.	22.6	43.7	72.5	54.6	64.3	58.9	62.9
Furniture, lumber, and other wood products	23.1	52.3	64.9	61.1	45.7	64.6	44.9
Paper and allied products	193.2	267.5	402.7	267.6	257.8	200.8	202.7
Carbon black	15.0	42.0	52.8	38.2	34.1	4.1	2.8
Chemicals and allied products (except carbon black)	519.6	644.6	880.7	886.5	603.8	545.9	578.7
Petroleum refining	384.1	375.1	639.6	514.5	372.0	221.4	135.6
Rubber and miscellaneous plastic products	16.8	38.9	47.8	45.1	50.7	48.7	56.0
Glass products	138.4	184.8	208.8	173.7	170.9	135.8	130.1
Cement	169.6	183.5	195.0	158.1	49.2	10.6	11.9
Clay products, pottery, etc.	129.6	153.7	145.3	110.0	86.4	53.5	55.6
Other stone products and miscellaneous	30.8	68.3	82.3	97.0	85.5	53.6	67.0
Primary iron and steel industries	346.1	552.4	669.0	555.5	546.3	310.7	342.5
Primary non-ferrous industries	208.1	270.8	232.9	275.9	194.4	175.6	173.2
Fabricated metal products, machinery equipment and supplies	110.7	181.6	289.8	276.8	233.1	187.2	213.7
Transportation equipment	65.1	112.0	170.8	140.2	84.4	71.0	88.8
Other manufacturing	33.9	63.3	100.0	122.1	121.0	87.9	147.3
Public administration	c	c	c	72.1	70.0	98.1	95.0
Unclassified[d]	1,181.1	1,236.9	1,434.9	3,495.4	4,354.9	3,345.0	3,156.6
Total Gas Utility Industry Commercial, Industrial and "Other" sales[a,e]	**5,413.9**	**6,882.7**	**9,396.8**	**10,173.5**	**11,003.7**	**8,777.1**	**8,939.2**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**4,512.7**	**6,050.0**	**8,022.9**	**8,786.0**	**7,851.5**	**5,986.0**	**6,216.3**
Transfers[a]	**234.1**	**246.2**	**283.6**	**301.6**	**416.7**	**368.3**	**405.8**

a. Includes the quantities of gas for electric generation detailed as "Transfers" which are not included in Total Commercial, Industrial, and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies.
b. Classification eliminated.
c. New classification in 1972.
d. Difference between total and classified volumes.
e. Includes Industrial and "Other" sales only prior to 1971.
Note: Prior to 1982 only large volume sales detailed by SIC.

TABLE 6-10
GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1984

(Trillions of Btu)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	46.6	0.6	0.6	7.7	9.3	0.3	1.3	12.1	3.7	11.0
Petroleum and natural gas production	49.5	a	0.1	6.7	29.0	0.0	0.9	0.8	3.4	8.5
Other mining	27.1	a	0.2	4.2	1.0	6.6	a	6.4	4.4	4.3
Electric services[b]	2,160.2	41.8	297.6	13.5	24.4	129.8	54.9	934.8	58.5	604.8
Other transportation, communication, and public utilities	97.7	5.6	5.7	19.2	20.8	1.7	2.4	16.4	2.7	23.1
Hotels, rooming houses, and camps	32.8	0.8	3.8	10.6	3.8	1.5	1.1	0.4	0.9	9.8
Laundries, cleaning and dyeing	27.9	0.7	2.2	8.9	1.1	1.9	1.3	0.2	0.2	11.4
Other services	382.6	9.7	34.1	168.9	38.1	20.2	16.1	12.9	10.9	71.7
Other non-manufacturing	261.7	15.5	33.8	117.1	22.1	6.3	9.4	1.1	5.3	51.3
Food and kindred products	287.8	2.4	30.1	81.2	55.0	23.1	11.7	8.7	14.0	61.6
Textile products, apparel, fabrics, etc.	62.9	3.8	4.2	4.0	0.3	39.2	6.4	0.7	0.1	4.2
Furniture, lumber, and other wood products	44.9	0.1	2.3	7.5	1.4	7.1	5.5	8.5	0.5	12.1
Paper and allied products	202.7	3.9	22.4	52.9	6.3	26.7	33.3	3.7	7.8	45.7
Carbon black	2.8	0.0	0.0	0.7	0.0	0.8	0.1	0.8	0.0	0.4
Chemicals and allied products (except carbon black)	578.7	3.2	29.9	85.5	72.6	100.2	36.0	212.4	7.5	31.4
Petroleum refining	135.6	a	4.8	17.3	6.7	9.9	4.5	28.7	8.6	55.1
Rubber and miscellaneous plastic products	56.0	0.8	5.9	18.6	5.1	5.9	7.2	4.6	4.4	3.4
Glass products	130.1	2.8	35.7	29.8	3.9	17.3	12.4	9.0	0.0	19.2
Cement	11.9	0.0	0.1	0.8	2.0	3.5	1.1	0.6	1.3	2.5
Clay products, pottery, etc.	55.6	0.5	4.8	8.0	8.0	20.5	5.5	2.2	1.0	5.0
Other stone products and miscellaneous	67.0	1.3	8.2	11.2	8.1	17.9	2.5	0.2	6.0	11.5
Primary iron and steel industries	342.5	2.3	52.2	205.5	20.5	25.6	26.4	1.4	0.9	7.7
Primary non-ferrous industries	173.2	1.7	15.7	63.6	8.5	4.8	10.3	25.6	24.9	18.2
Fabricated metal products, machinery equipment and supplies	213.7	5.8	30.9	109.0	16.4	9.5	12.6	6.0	2.8	20.6
Transportation equipment	88.8	1.3	8.1	50.6	9.6	4.2	3.6	2.1	0.8	8.4
Other manufacturing	147.3	2.6	16.5	35.3	6.8	6.7	10.0	52.9	2.5	13.8
Public administration	95.0	1.8	10.1	16.6	11.4	17.4	7.0	8.9	5.2	16.6
Unclassified	3,156.8	90.1	395.1	536.3	327.3	350.5	236.1	869.3	244.6	107.9
Total Gas Utility Industry Commercial, Industrial and "Other" sales[b]	**8,939.2**	**199.1**	**1,055.1**	**1,691.2**	**719.5**	**859.1**	**519.6**	**2,231.4**	**422.9**	**1,241.2**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**6,216.3**	**122.0**	**675.6**	**1,421.8**	**551.0**	**676.4**	**320.8**	**1,054.9**	**247.4**	**1,146.4**
Transfers[b]	**405.8**	**2.3**	**216.9**	**1.7**	**3.6**	**9.7**	**1.3**	**157.3**	**12.9**	**0.0**

a. Less than 0.05 trillions of Btu.
b. Includes the quantities for electric generation detailed as "Transfers" which are not included in Total Commercial, Industrial and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies.

TABLE 6-11
GAS CONSUMED FOR ELECTRIC GENERATION,[a] BY STATE, 1960-1984

(Millions of Cubic Feet)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**1,724,762**	**2,321,101**	**3,931,860**	**3,146,874**	**3,681,595**	**2,910,767**	**3,112,729**
New England	**12,885**	**13,918**	**8,133**	**2,523**	**7,001**	**27,714**	**38,360**
Connecticut	1,756	337	147	344	0	0	2,228
Maine	0	0	0	0	0	0	0
Massachusetts	10,785	13,098	5,668	1,437	5,083	24,396	32,132
New Hampshire	0	0	0	177	0	20	67
Rhode Island	344	483	2,319	11	1,679	3,079	3,661
Vermont	0	0	0	555	239	220	272
Middle Atlantic	**89,288**	**97,850**	**161,385**	**23,436**	**206,769**	**234,351**	**267,557**
New Jersey	25,482	22,440	45,891	8,601	79,513	96,886	95,323
New York	57,819	74,189	106,141	13,613	124,391	135,811	169,620
Pennsylvania	5,987	1,221	9,354	1,213	2,865	1,654	2,614
East North Central	**61,407**	**68,232**	**278,143**	**118,394**	**65,883**	**32,004**	**19,949**
Illinois	42,348	34,618	132,382	34,176	19,165	11,948	6,013
Indiana	8,790	13,272	29,507	10,994	1,904	2,877	1,451
Michigan	5,209	2,989	64,270	47,151	26,368	12,618	9,711
Ohio	2,992	2,947	21,380	6,139	4,706	1,046	831
Wisconsin	2,068	14,406	30,604	19,935	13,740	3,514	1,942
West North Central	**245,084**	**303,818**	**420,086**	**264,825**	**143,387**	**57,780**	**41,492**
Iowa	48,587	52,238	77,910	46,929	6,835	3,249	3,136
Kansas	82,195	112,955	167,885	127,818	101,022	47,226	32,235
Minnesota	48,521	51,420	58,954	22,709	8,077	2,861	1,980
Missouri	30,251	47,552	62,970	26,320	15,329	2,806	2,182
Nebraska	30,973	36,269	47,641	37,659	11,850	1,581	1,497
North Dakota	103	25	362	157	15	11	10
South Dakota	4,454	3,359	4,364	3,232	259	45	52
South Atlantic	**147,439**	**117,395**	**343,408**	**199,105**	**191,409**	**187,819**	**187,467**
Delaware	3,190	4,611	3,744	1,697	6,999	5,023	7,060
District of Columbia	0	0	0	0	0	0	0
Florida	88,518	87,001	198,367	141,153	166,047	174,813	174,740
Georgia	25,336	831	58,674	40,282	3,660	1,633	608
Maryland	78	56	11,435	451	5,230	1,800	1,235
North Carolina	4,660	2,895	21,126	101	1,702	163	121
South Carolina	23,278	18,801	45,081	14,566	5,418	942	435
Virginia	1,438	2,268	4,276	496	2,285	3,330	3,152
West Virginia	941	932	705	358	62	115	116
East South Central	**53,249**	**78,626**	**140,940**	**37,774**	**99,461**	**51,629**	**64,805**
Alabama	9,378	5,561	15,444	5,994	1,382	553	356
Kentucky	2,288	453	8,533	272	1,902	1,196	1,767
Mississippi	34,358	56,360	99,710	31,507	95,073	49,773	62,682
Tennessee	7,225	16,252	17,253	0	1,104	107	0
West South Central	**656 727**	**1,009,857**	**1,735,541**	**2,042,085**	**2,243,820**	**1,757,363**	**1,816,360**
Arkansas	46,779	67,510	107,445	31,818	58,863	33,275	24,962
Louisiana	119,818	175,573	331,750	356,130	424,991	296,490	301,048
Oklahoma	82,820	127,231	234,721	300,848	329,940	236,950	224,993
Texas	407,310	639,543	1,061,625	1,353,290	1,430,026	1,190,648	1,265,357
Mountain	**134,990**	**136,442**	**198,745**	**164,636**	**175,032**	**65,661**	**72,123**
Arizona	53,246	36,740	58,898	17,693	49,699	19,209	25,366
Colorado	37,015	35,539	51,194	52,930	31,928	4,526	5,844
Idaho	0	0	0	18	46	9	5
Montana	341	1,992	2,529	1,059	4,182	335	360
Nevada	6,339	13,271	25,336	25,152	27,541	9,562	9,389
New Mexico	33,701	43,996	54,894	64,239	56,280	30,626	30,802
Utah	3,677	4,742	3,520	2,725	5,133	1,259	271
Wyoming	671	163	2,373	819	222	136	86
Pacific	**323,693**	**494,963**	**645,478**	**294,105**	**548,833**	**496,445**	**604,616**
Alaska	0	2,149	8,198	19,619	28,763	31,348	31,582
California	322,992	492,701	636,270	274,483	518,808	465,066	573,001
Hawaii	0	0	0	0	0	0	0
Oregon	701	113	1,010	3	321	1	b
Washington	0	0	0	0	941	30	33

a. Includes direct sales by producers to electric utilities as well as sales by the gas utility industry.
b. Less than 0.5 million cubic feet.
R - Revised.
Source: U.S. Department of Energy, Energy Information Administration, *Electric Power Monthly*, December 1984.

TABLE 6-12
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION, 1960-1984[a]

(Trillions of Btu)

Year	Sales				Transfers[c]	Total Sales and Transfers
	Industrial[b]		Other	Total Sales		
	Firm	Interruptible				
1960		999.3	187.1	1,186.4	234.1	1,420.4
1961		990.6	218.6	1,209.2	244.0	1,453.2
1962		1,040.7	259.0	1,299.7	239.1	1,538.8
1963		1,103.2	306.6	1,409.7	247.1	1,656.8
1964		1,258.3	347.0	1,605.3	265.4	1,870.7
1965		1,179.5	308.5	1,488.0	246.2	1,734.2
1966		1,276.2	367.8	1,644.0	260.2	1,904.2
1967		1,386.9	316.7	1,703.6	254.3	1,957.9
1968		1,489.6	381.3	1,870.9	270.9	2,141.8
1969		1,643.9	360.8	2,004.7	232.6	2,237.3
1970		1,877.5	427.5	2,305.0	283.6	2,588.6
1971	853.6	1,083.6	483.4	2,420.6	595.2	3,015.9
1972	956.5	858.4	553.3	2,368.4	549.5	2,917.9
1973	542.8	871.6	511.4	1,925.8	477.2	2,403.0
1974	497.2	812.5	387.9	1,697.6	419.8	2,117.4
1975	374.5	623.4	385.8	1,383.6	301.6	1,685.2
1976	478.1	889.5	d	1,367.6	250.9	1,618.5
1977	489.1	959.6	d	1,448.7	241.1	1,689.8
1978	544.2	854.0	d	1,398.2	187.9	1,586.1
1979	665.2	980.0	d	1,645.2	335.0	1,980.2
1980	974.0	1,129.8	d	2,103.8	416.7	2,520.5
1981	996.6	1,259.3	d	2,255.9	344.0	2,599.8
1982	775.8	1,157.6	d	1,933.4	367.9	2,301.3
1983[R]	632.2	973.3	d	1,605.5	368.3	1,973.8
1984	670.5	1,079.5	d	1,750.0	405.8	2,155.8

a. Excludes direct sales by producers to electric utilities.
b. No breakdown available prior to 1971.
c. Represents transfers by the gas department to the electric department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.
R - Revised.

TABLE 6-13
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION BY STATE, 1984[a]

(Trillions of Btu)

Division of State	Industrial Sales			Transfers[b]	Total Sales and Transfers
	Firm	Interruptible	Total		
United States	**670.5**	**1,079.5**	**1,750.0**	**405.8**	**2,155.8**
New England	**0.2**	**39.4**	**39.5**	**2.3**	**41.8**
Connecticut	0.0	0.0	0.0	2.3	2.3
Maine	0.0	0.0	0.0	0.0	0.0
Massachusetts	0.2	35.6	35.7	0.0	35.7
New Hampshire	0.0	0.0	0.0	0.0	0.0
Rhode Island	0.0	3.8	3.8	0.0	3.8
Vermont	0.0	0.0	0.0	0.0	0.0
Middle Atlantic	**1.0**	**79.6**	**80.6**	**216.9**	**297.5**
New Jersey	0.2	19.7	19.9	71.2	91.1
New York	0.1	59.7	59.8	145.7	205.6
Pennsylvania	0.7	0.1	0.8	c	0.8
East North Central	**6.1**	**4.4**	**10.5**	**1.7**	**12.2**
Illinois	4.7	1.8	6.5	0.3	6.8
Indiana	0.2	0.0	0.2	1.3	1.5
Michigan	0.8	0.5	1.3	0.0	1.3
Ohio	0.2	0.2	0.4	0.1	0.5
Wisconsin	0.2	1.9	2.0	0.0	2.0
West North Central	**2.1**	**18.2**	**20.4**	**3.6**	**24.0**
Iowa	0.4	1.5	1.9	0.5	2.4
Kansas	0.6	13.4	14.0	1.9	15.8
Minnesota	0.1	1.7	1.8	1.1	2.9
Missouri	0.2	1.4	1.6	0.1	1.6
Nebraska	0.9	0.2	1.1	c	1.1
North Dakota	0.0	c	c	0.0	c
South Dakota	0.0	c	c	c	c
South Atlantic	**0.1**	**119.9**	**120.0**	**9.7**	**129.7**
Delaware	0.0	0.0	0.0	5.3	5.3
District of Columbia	0.0	0.0	0.0	0.0	0.0
Florida	0.1	118.8	119.0	0.0	119.0
Georgia	0.0	0.7	0.7	0.0	0.7
Maryland	0.0	0.0	0.0	1.0	1.0
North Carolina	0.0	0.2	0.2	0.0	0.2
South Carolina	0.0	0.0	0.0	0.2	0.2
Virginia	0.0	0.0	0.0	3.2	3.2
West Virginia	0.0	0.1	0.1	0.0	0.1
East South Central	**43.6**	**10.0**	**53.6**	**1.3**	**54.9**
Alabama	c	0.1	0.1	0.0	0.1
Kentucky	0.0	0.0	0.0	1.1	1.1
Mississippi	43.6	9.9	53.5	0.0	53.5
Tennessee	0.0	c	c	0.2	0.2
West South Central	**563.6**	**213.8**	**777.5**	**157.3**	**934.8**
Arkansas	20.8	c	20.8	0.0	20.8
Louisiana	44.1	5.3	49.4	31.8	81.2
Oklahoma	11.4	3.0	14.4	80.9	95.3
Texas	487.3	205.5	692.9	44.6	737.5
Mountain	**40.0**	**5.6**	**45.6**	**12.9**	**58.5**
Arizona	16.3	0.2	16.5	8.9	25.4
Colorado	c	5.3	5.3	0.2	5.5
Idaho	0.0	0.0	0.0	0.0	0.0
Montana	0.0	0.1	0.1	0.3	0.4
Nevada	10.0	0.0	10.0	3.4	13.4
New Mexico	13.7	0.0	13.7	0.0	13.7
Utah	0.0	0.0	0.0	0.0	0.0
Wyoming	0.0	0.0	0.0	0.0	0.0
Pacific	**13.7**	**588.7**	**602.4**	**0.0**	**602.4**
Alaska	0.0	16.8	16.8	0.0	16.8
California	13.7	571.9	585.6	0.0	585.6
Hawaii	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	c	c	0.0	c
Washington	0.0	0.0	0.0	0.0	0.0

a. Excludes direct sales by producers to electric utilities.
b. Volumes transferred by the gas department to the electric department of combination gas and electric companies.
c. Less than 0.05 trillion Btu.

TABLE 6-14
TOTAL LIQUEFIED PETROLEUM GAS SALES BY CONSUMING SECTOR
1960-1983*

(Trillions of Btu)

Year	Total	Sector			
		Residential	Commercial	Industrial	Transportation
1960	911.7	342.9	60.5	489.1	19.1
1961	938.2	350.5	61.9	506.8	19.0
1962	1,024.7	382.6	67.5	554.3	20.3
1963	1,107.9	410.2	72.4	604.0	21.3
1964	1,183.6	420.6	74.2	663.6	25.3
1965	1,231.8	434.0	76.6	697.0	24.3
1966	1,299.3	461.2	81.4	734.0	22.7
1967	1,322.0	483.3	85.3	732.9	20.5
1968	1,472.8	519.1	91.6	839.9	22.1
1969	1,695.6	589.6	104.1	975.9	26.1
1970	1,688.5	578.9	102.2	981.1	26.4
1971	1,722.9	585.4	103.3	1,003.8	30.3
1972	1,954.6	628.0	110.8	1,179.1	36.7
1973	1,980.7	594.8	105.0	1,242.0	39.0
1974	1,913.8	545.9	96.3	1,230.7	40.9
1975	1,807.1	527.8	93.1	1,148.8	37.4
1976	1,907.3	549.2	96.9	1,223.1	38.0
1977	1,907.9	533.5	94.1	1,243.8	36.5
1978	1,891.9	516.4	91.1	1,255.2	29.2
1979	2,138.1	354.8	62.6	1,707.8	12.9
1980	1,976.0	325.1	57.4	1,576.1	17.4
1981	1,948.9	310.9	54.9	1,561.4	21.7
1982	1,978.4	296.1	52.3	1,601.2	28.9
1983	1,990.2	352.4	62.2	1,538.2	37.4

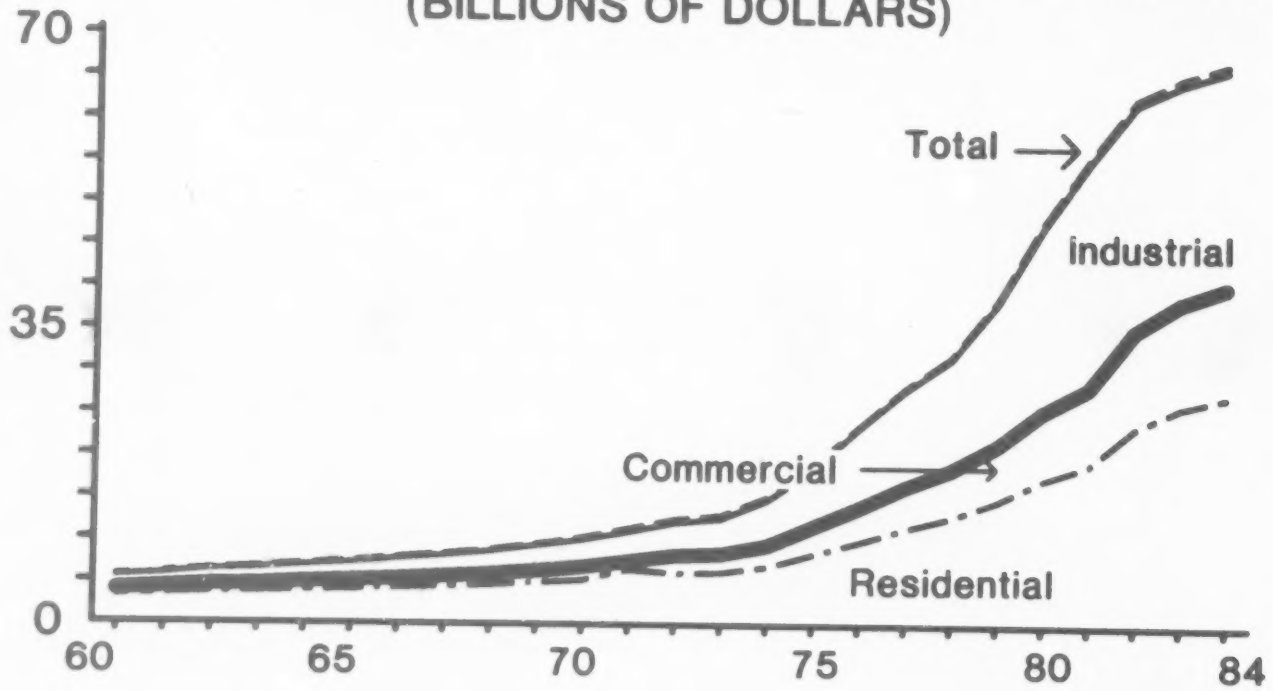
* - Liquefied petroleum gases include ethane, ethylene, propane, propylene, butane, butylene, butane-propane mixture, ethane-propane mixture, and isobutane. The 1979-1983 LPG data may not be directly comparable to the pre-1979 data due to modifications to the LPG sales survey form and an updated sampling frame.

Source: U.S. Department of Energy, Energy Information Administration, *State Energy Data Reports.*

SECTION 7
REVENUES

	1984	% Change 84/83
Gas Utility Industry		
(Thousands)		
Total	$67,496,020	+2.5
Residential	27,484,712	+5.0
Commercial	13,205,089	+4.3
Industrial	26,093,445	−0.8
Industrial Only	18,704,485	−4.4
Electric Generation	7,388,960	+9.6
Other	712,774	+3.3
Resale	$48,383,065	−4.8

GAS UTILITY INDUSTRY REVENUES BY CLASS OF SERVICE (BILLIONS OF DOLLARS)



REFERENCE: TABLE 7-1

REVENUES

TABLE 7-1
GAS UTILITY INDUSTRY REVENUES, BY CLASS OF SERVICE, 1960-1984[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	$ 5,617,387	$ 3,177,430	$ 723,448	$ 1,563,285	$153,224
1961	5,992,879	3,376,781	789,202	1,658,276	168,620
1962	6,444,860	3,603,266	874,366	1,795,894	171,334
1963	6,726,815	3,727,868	910,497	1,905,733	182,717
1964	7,132,685	3,894,870	998,386	2,048,527	190,902
1965	7,406,978	4,029,562	1,053,647	2,147,958	175,811
1966	7,869,888	4,195,331	1,135,352	2,334,654	204,551
1967	8,260,739	4,382,837	1,223,897	2,460,885	193,120
1968	8,781,152	4,567,307	1,315,409	2,675,261	223,175
1969	9,479,566	4,883,029	1,459,054	2,918,973	218,510
1970	10,282,611	5,207,335	1,620,446	3,181,206	273,624
1971	11,357,392	5,635,395	1,829,309	3,568,582	324,106
1972	12,465,235	6,094,171	2,063,803	3,943,011	364,250
1973	12,987,272	6,246,988	2,172,460	4,196,714	371,110
1974	15,242,481	6,899,395	2,539,300	5,391,139	412,647
1975	19,101,498	8,445,484	3,302,669	6,745,171	608,174
1976	23,701,211	9,941,013	4,075,009	9,434,751	250,438
1977	28,303,200	11,540,805	4,979,890	11,454,675	327,830
1978	32,149,921	12,938,865	5,695,666	13,138,576	376,814
1979	38,947,143	14,832,950	6,623,766	17,044,820	445,607
1980	48,303,034	17,432,095	8,183,160	22,215,221	472,558
1981	56,109,786	19,180,238	9,285,550	27,123,862	520,136
1982	63,199,775	23,699,899	11,666,099	27,200,015	633,762
1983	65,836,669	26,173,122	12,658,718	26,314,873	689,956
1984	67,496,020	27,484,712	13,205,089	26,093,445	712,774

a. Excludes data for Alaska prior to 1961.
b. Prior to 1976 "Other" electric generation (refer to Table 7-9) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

TABLE 7-2
GAS UTILITY INDUSTRY REVENUES, BY QUARTER AND CLASS OF SERVICE, 1960-1984

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	$ 2,033,980	$ 1,304,810	$ 297,337	$ 385,053	$ 46,780
Second	1,278,858	701,603	153,028	389,985	34,242
Third	860.134	358,237	83,575	388,519	29,803
Fourth	1,431,263	803,400	186,039	399,440	42,384
1965					
First	2,688,389	1,667,580	438,864	528,598	53,347
Second	1,713,833	909,991	230,269	535,235	38,338
Third	1,151,283	461,313	121,320	531,538	37,112
Fourth	1,847,096	986,096	261,769	552,222	47,009
1970					
First	3,742,316	2,197,999	687,117	780,927	76,273
Second	2,342,672	1,136,333	346,748	797,906	61,685
Third	1,624,621	578,747	182,163	803,503	60,208
Fourth	2,573,002	1,294,256	404,418	798,870	75,458
1975					
First	6,192,706	3,303,345	1,241,301	1,507,088	140,972
Second	4,449,583	1,972,484	734,977	1,625,673	116,449
Third	3,396,905	987,079	438,873	1,783,838	187,115
Fourth	5,062,304	2,182,576	887,518	1,828.572	163,638
1977					
First	9,847,887	5,157,004	2,044,743	2,540,054	106,087
Second	5,898,652	2,118,485	930,741	2,780,625	68,801
Third	5,032,784	1,220,430	664,815	3,080,794	66,745
Fourth	7,523,878	3,044,890	1,339,590	3,053,202	86,197
1978					
First	11,443,834	5,794,334	2,412,856	3,106,186	130,458
Second	6,946,269	2,533,334	1,125,102	3,213,436	74,397
Third	5,548,952	1,309,307	690,271	3,477,345	72,029
Fourth	8,210,868	3,301,893	1,467,438	3,341,609	99,930
1979					
First	13,317,971	6,544,017	2,744,291	3,860,146	169,518
Second	8,158,475	2,823,066	1,259,409	4,003,476	72,524
Third	6,809,065	1,517,166	796,336	4,427,445	68,117
Fourth	10,661,631	3,948,701	1,823,730	4,753,753	135,448
1980					
First	16,402,661	7,290,269	3,245,916	5,690,750	175,726
Second	10,062,858	3,365,770	1,567,485	5,041,319	88,284
Third	8,570,836	1,776,745	1,036,752	5,685,694	71,645
Fourth	13,266,679	4,999,311	2,333,007	5,797,458	136,903
1981					
First	18,801,514	8,306,948	3,745,526	6,558,879	190,161
Second	12,100,242	3,431,510	1,700,873	6,864,699	103,160
Third	10,093,853	1,953,491	1,174,408	6,886,411	79,543
Fourth	15,114,177	5,488.289	2,664,743	6,813,873	147,272
1982					
First	22,716,502	10,471,317	4,812,798	7,199,859	232,528
Second	13,208,177	4,427,895	2,205,520	6,459,704	115,058
Third	10,788,316	2,372,937	1,455,682	6,868,834	90,863
Fourth	16,486,780	6,427,750	3,192,099	6,671,618	195,313
1983					
First	23,039,000	10,804,224	5,020,783	6,950,292	263,701
Second	14,587,145	5,598,036	2,665,010	6,176,141	147,958
Third	10,920,330	2,597,847	1,544,337	6,682,247	95,899
Fourth	17,290,194	7,173,015	3,428,588	6,506,193	182,398
1984					
First	25,546,487	12,465,614	5,734,066	7,050,283	296,524
Second	14,279,339	5,321,667	2,579,752	6,245,307	132,613
Third	10,848,535	2,687,904	1,553,055	6,523,725	83,851
Fourth	16,821,659	7,009,527	3,338,216	6,274,130	199,786

*Prior to 1976 "Other" electric generation (see Table 7-9) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

TABLE 7-3
GAS UTILITY INDUSTRY REVENUES, BY STATE, 1960-1984[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1983	1984
United States	**$5,617,387**	**$7,406,978**	**$10,282,611**	**$19,101,498**	**$48,303,034**	**$65,836,669**	**$67,496,020**
New England	**212,719**	**274,937**	**377,666**	**700,071**	**1,479,111**	**2,262,814**	**2,295,169**
Connecticut	52,198	66,653	98,178	178,480	366,348	590,621	575,806
Maine	3,608	3,845	4,013	5,983	11,155	21,096	20,186
Massachusetts	131,588	171,040	228,224	425,411	905,414	1,343,982	1,392,741
New Hampshire	5,126	7,336	10,328	17,190	40,569	69,351	71,536
Rhode Island	18,803	24,599	34,360	65,982	132,190	210,076	205,553
Vermont	1,396	1,464	2,563	7,025	23,435	27,688	29,347
Middle Atlantic	**1,068,271**	**1,342,428**	**1,753,799**	**2,940,846**	**6,603,468**	**9,637,766**	**10,119,336**
New Jersey	192,315	268,622	372,672	594,560	1,408,766	2,166,339	2,181,418
New York	462,574	570,984	720,609	1,248,149	2,663,655	4,079,481	4,441,004
Pennsylvania	413,382	502,822	660,518	1,098,137	2,531,047	3,391,946	3,496,914
East North Central	**1,394,218**	**1,995,933**	**2,888,886**	**5,033,327**	**11,584,314**	**15,687,614**	**16,228,356**
Illinois	393,707	555,763	829,369	1,504,405	3,588,071	4,554,516	4,841,699
Indiana	135,593	218,436	356,270	530,454	1,341,428	1,998,449	2,123,383
Michigan	290,178	434,292	651,318	1,269,106	2,602,792	3,637,285	3,776,960
Ohio	483,987	625,011	789,008	1,254,154	2,875,396	3,863,759	3,854,328
Wisconsin	90,753	162,431	262,921	475,208	1,176,627	1,633,605	1,631,986
West North Central	**540,961**	**701,789**	**982,976**	**1,585,864**	**3,778,158**	**5,552,756**	**5,725,327**
Iowa	96,062	127,197	180,607	311,364	718,370	1,016,278	1,062,887
Kansas	100,563	125,238	178,128	282,119	815,547	1,088,845	1,081,333
Minnesota	113,648	156,680	218,398	352,170	750,995	1,248,128	1,311,037
Missouri	144,596	187,021	267,726	406,752	992,492	1,433,934	1,422,483
Nebraska	66,334	77,722	101,542	169,010	356,352	534,712	582,837
North Dakota	5,712	10,566	15,540	31,037	77,168	112,317	131,167
South Dakota	14,046	17,365	21,035	33,412	67,234	118,542	133,583
South Atlantic	**476,032**	**631,577**	**941,975**	**1,538,752**	**4,112,603**	**6,136,268**	**6,452,307**
Delaware	10,102	15,881	22,672	33,229	78,336	137,954	146,287
District of Columbia	26,868	29,602	34,635	54,671	120,837	211,459	235,569
Florida	47,537	73,357	120,609	146,526	611,114	870,666	953,086
Georgia	104,603	127,728	191,637	349,550	950,915	1,410,629	1,543,220
Maryland	87,037	113,321	163,999	272,830	598,324	912,003	933,782
North Carolina	30,669	54,773	106,051	165,659	495,459	731,107	771,991
South Carolina	23,344	42,736	74,858	130,662	354,351	498,458	548,288
Virginia	67,569	89,235	126,840	206,109	482,080	804,776	820,714
West Virginia	78,303	84,944	100,674	179,516	421,187	559,216	499,370
East South Central	**312,695**	**365,717**	**509,350**	**775,705**	**2,306,091**	**3,159,064**	**3,210,727**
Alabama	93,652	113,647	149,962	237,710	698,762	904,844	939,014
Kentucky	80,075	91,310	127,787	199,738	509,455	741,994	765,769
Mississippi	60,254	68,331	100,383	134,730	517,786	665,907	646,893
Tennessee	78,714	92,429	131,218	203,527	580,088	846,319	859,051
West South Central	**642,063**	**771,223**	**1,066,433**	**2,953,148**	**8,951,915**	**11,286,573**	**10,335,091**
Arkansas	58,303	83,252	125,928	175,862	408,334	707,918	690,394
Louisiana	141,741	165,926	219,303	386,609	1,215,482	1,377,645	1,263,144
Oklahoma	88,272	103,263	127,367	328,817	965,728	1,161,861	1,185,651
Texas	353,747	418,782	593,835	2,061,860	6,362,371	8,039,149	7,195,902
Mountain	**246,824**	**325,757**	**456,593**	**920,668**	**2,393,490**	**3,061,752**	**3,256,561**
Arizona	52,255	65,722	95,423	171,773	384,777	517,968	536,957
Colorado	69,462	88,404	120,563	241,901	713,628	976,738	1,008,487
Idaho	11,555	19,776	28,990	75,818	182,600	169,073	169,766
Montana	22,159	32,003	42,871	82,021	163,917	207,733	210,612
Nevada	8,786	17,544	32,383	79,858	196,982	224,520	229,611
New Mexico	38,804	43,638	56,975	125,617	333,855	377,408	400,494
Utah	32,269	43,572	55,273	101,164	284,725	400,655	507,446
Wyoming	11,534	15,098	24,115	42,516	133,006	187,657	193,188
Pacific	**723,604**	**997,617**	**1,304,933**	**2,653,117**	**7,093,884**	**9,052,062**	**9,873,146**
Alaska	b	4,575	11,678	24,829	38,725	67,435	77,368
California	653,350	875,876	1,117,573	2,193,048	6,076,193	7,935,670	8,594,679
Hawaii	5,003	6,053	7,714	24,125	45,162	47,352	44,950
Oregon	24,806	42,169	65,096	156,703	354,502	382,323	443,088
Washington	40,445	68,944	102,872	254,412	579,302	619,282	713,061

a. Excludes revenues from sales for ressale.
b. Not available.

TABLE 7-4
GAS UTILITY INDUSTRY REVENUES FROM GAS FOR RESALE, BY STATE, 1960-1984*

(Thousands)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**$3,165,820**	**$4,255,066**	**$6,217,662**	**$11,573,752**	**$37,910,013**	**$50,804,379**	**$48,383,065**
New England	**82,195**	**110,807**	**168,196**	**382,550**	**851,449**	**1,330,585**	**1,297,647**
Connecticut			51,891	125,226	222,022	329,617	316,426
Maine			0	0	0	0	0
Massachusetts			94,590	216,069	529,965	849,267	831,223
New Hampshire			5,319	5,744	17,577	33,792	31,122
Rhode Island			16,396	34,645	81,885	117,909	118,876
Vermont			0	866	0	0	0
Middle Atlantic	**575,739**	**777,878**	**1,057,060**	**1,761,307**	**5,815,523**	**8,400,810**	**8,262,530**
New Jersey			215,211	365,302	1,250,773	2,029,321	2,016,712
New York			371,895	532,961	1,829,091	2,772,402	2,786,000
Pennsylvania			469,951	863,044	2,735,659	3,599,087	3,459,818
East North Central	**699,808**	**1,151,990**	**1,940,570**	**3,596,246**	**10,687,835**	**13,829,337**	**13,535,676**
Illinois			529,299	1,041,633	3,412,478	4,609,519	4,611,693
Indiana			188,301	292,665	988,871	1,482,850	1,651,064
Michigan			278,232	659,019	1,804,423	2,079,014	1,997,256
Ohio			756,382	1,144,706	3,145,106	4,226,919	3,793,149
Wisconsin			188,355	458,223	1,336,957	1,431,035	1,482,514
West North Central	**251,580**	**306,416**	**439,274**	**803,046**	**2,198,971**	**3,604,065**	**3,436,614**
Iowa			105,106	202,852	517,052	648,174	654,887
Kansas			52,935	89,538	265,146	468,933	417,228
Minnesota			100,758	178,677	554,425	887,086	896,689
Missouri			127,783	231,990	628,970	1,171,190	1,082,985
Nebraska			42,394	77,384	174,217	330,631	298,779
North Dakota			2,186	7,695	22,277	23,663	10,830
South Dakota			8,114	14,910	36,884	74,388	75,216
South Atlantic	**487,720**	**597,386**	**748,392**	**1,094,146**	**3,581,501**	**5,159,267**	**4,665,476**
Delaware			680	1,170	2,894	6,644	5,973
District of Columbia			0	0	0	0	0
Florida			24,297	54,786	218,749	309,716	311,707
Georgia			122,268	217,592	709,353	1,173,016	1,199,273
Maryland			81,983	159,003	480,609	668,290	514,608
North Carolina			38,167	96,134	440,145	571,070	638,379
South Carolina			75,078	86,854	313,732	390,253	404,723
Virginia			99,200	177,878	542,737	1,103,286	747,598
West Virginia			306,719	300,729	873,282	936,992	843,215
East South Central	**343,356**	**348,642**	**495,572**	**752,002**	**2,695,523**	**3,905,249**	**3,816,255**
Alabama			79,205	140,282	495,051	721,608	695,291
Kentucky			156,277	169,609	528,686	774,579	760,457
Mississippi			92,771	163,268	632,103	872,944	852,425
Tennessee			167,320	278,843	1,039,683	1,536,118	1,508,082
West South Central	**238,630**	**236,039**	**324,987**	**765,273**	**4,322,831**	**5,137,316**	**4,026,212**
Arkansas			6,684	9,328	34,680	46,402	41,366
Louisiana			192,241	354,067	1,383,886	1,946,327	1,478,954
Oklahoma			33,698	91,809	422,361	561,490	385,816
Texas			92,363	310,069	2,481,904	2,583,097	2,120,076
Mountain	**375,843**	**437,321**	**622,947**	**1,349,007**	**4,434,173**	**5,778,145**	**5,736,987**
Arizona			482,102	935,305	3,093,184	4,203,160	4,381,522
Colorado			65,331	163,200	657,917	862,085	804,351
Idaho			24,852	96,221	228,724	203,505	208,521
Montana			3,435	7,289	25,957	21,893	21,637
Nevada			2,950	12,147	36,042	49,466	50,535
New Mexico			20,924	34,447	111,849	159,691	70,056
Utah			4,186	3,113	15,333	19,302	13,228
Wyoming			19,168	97,285	265,167	259,043	187,137
Pacific	**110,949**	**288,567**	**420,664**	**1,070,175**	**3,322,207**	**3,659,605**	**3,605,668**
Alaska			0	0	22,677	0	0
California			249,666	294,546	1,199,764	1,804,634	1,784,204
Hawaii			0	0	0	0	0
Oregon			120,229	598,295	1,665,022	1,416,404	1,319,802
Washington			50,769	177,334	434,744	438,567	501,662

* Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.
R — Revised.

TABLE 7-5
GAS UTILITY INDUSTRY REVENUES, BY STATE AND CLASS OF SERVICE, 1984

(Thousands)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**$67,496,020**	**$27,434,712**	**$13,205,089**	**$18,704,485**	**$7,388,960**	**$712,774**
New England	**2,295,169**	**1,154,945**	**591,008**	**374,025**	**158,370**	**16,821**
Connecticut	575,806	292,074	165,626	117,640	0	466
Maine	20,186	5,143	9,443	5,600	0	0
Massachusetts	1,392,741	702,622	346,493	185,988	143,756	13,882
New Hampshire	71,536	33,856	27,408	9,397	0	875
Rhode Island	205,553	111,166	35,960	43,575	14,614	238
Vermont	29,347	10,084	6,078	11,825	0	1,360
Middle Atlantic	**10,119,336**	**5,450,081**	**2,051,686**	**2,036,474**	**340,811**	**240,284**
New Jersey	2,181,418	1,108,820	547,235	437,716	86,705	942
New York	4,441,004	2,588,303	776,785	657,902	250,096	167,918
Pennsylvania	3,496,914	1,752,958	727,666	940,856	4,010	71,424
East North Central	**16,228,356**	**8,168,248**	**3,453,184**	**4,507,256**	**49,557**	**50,111**
Illinois	4,841,699	2,493,419	1,073,937	1,241,307	31,938	1,098
Indiana	2,123,383	867,857	366,919	880,325	824	7,458
Michigan	3,776,960	1,945,883	870,387	952,043	6,136	2,511
Ohio	3,854,328	2,126,516	845,028	842,742	2,180	37,862
Wisconsin	1,631,986	734,573	296,913	590,839	8,479	1,182
West North Central	**5,725,327**	**2,549,158**	**1,437,582**	**1,644,708**	**68,363**	**25,516**
Iowa	1,062,887	438,242	248,967	367,104	7,285	1,289
Kansas	1,081,333	355,080	185,459	486,058	44,090	10,646
Minnesota	1,311,037	605,298	308,263	385,903	7,016	4,557
Missouri	1,422,483	773,287	424,346	211,407	5,944	7,499
Nebraska	582,837	247,331	166,779	163,628	3,843	1,256
North Dakota	131,167	63,619	61,675	5,811	54	8
South Dakota	133,583	66,301	42,093	24,797	131	261
South Atlantic	**6,452,307**	**2,317,612**	**1,455,726**	**2,229,593**	**411,058**	**38,318**
Delaware	146,287	45,677	24,542	71,449	0	4,619
District of Columbia	235,569	109,502	126,067	0	0	0
Florida	953,086	109,517	157,166	265,878	406,370	14,155
Georgia	1,543,220	615,691	313,361	608,331	3,028	2,809
Maryland	933,782	516,914	217,815	198,745	0	308
North Carolina	771,991	216,544	155,352	398,569	1,074	452
South Carolina	548,288	125,337	98,367	322,569	0	2,015
Virginia	820,714	328,371	245,939	232,941	0	13,463
West Virginia	499,370	250,059	117,117	131,111	586	497
East South Central	**3,210,727**	**1,043,444**	**594,309**	**1,358,124**	**154,488**	**60,362**
Alabama	939,014	317,738	145,177	472,231	339	3,529
Kentucky	765,769	348,488	153,922	237,431	0	25,928
Mississippi	646,893	155,007	72,866	243,499	154,016	21,505
Tennessee	859,051	222,211	222,344	404,963	133	9,400
West South Central	**10,335,091**	**2,245,795**	**1,151,869**	**3,725,564**	**3,014,713**	**197,150**
Arkansas	690,394	200,627	120,754	291,405	76,689	919
Louisiana	1,263,144	398,904	146,938	474,818	180,874	61,610
Oklahoma	1,185,651	366,438	190,186	587,260	40,135	1,632
Texas	7,195,902	1,279,826	693,991	2,372,081	2,717,015	132,989
Mountain	**3,256,561**	**1,422,807**	**840,457**	**740,741**	**183,331**	**69,225**
Arizona	536,957	196,796	116,058	147,535	66,647	9,921
Colorado	1,008,487	490,064	328,804	166,843	20,632	2,144
Idaho	169,766	50,527	48,448	70,791	0	0
Montana	210,612	90,026	65,798	45,196	319	9,273
Nevada	229,611	83,321	71,174	27,398	45,398	2,320
New Mexico	400,494	165,171	75,356	64,688	50,335	44,944
Utah	507,446	271,246	83,282	152,731	0	187
Wyoming	193,188	75,656	51,537	65,559	0	436
Pacific	**9,873,146**	**3,132,622**	**1,629,268**	**2,088,000**	**3,008,269**	**14,987**
Alaska	77,368	29,856	9,252	11,870	26,390	0
California	8,594,679	2,756,458	1,307,054	1,536,566	2,981,532	13,069
Hawaii	44,950	10,423	7,933	26,594	0	0
Oregon	443,088	140,024	111,448	191,269	347	0
Washington	713,061	195,861	193,581	321,701	0	1,918

TABLE 7-6
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS REVENUES, BY STATE, 1984

(Thousands)

Division and State	Commercial			Industrial*		
	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**$13,205,089**	**$12,396,187**	**$808,902**	**$18,704,485**	**$10,728,115**	**$7,976,370**
New England	**591,008**	**535,347**	**55,661**	**374,025**	**184,454**	**189,571**
Connecticut	165,626	126,840	38,786	117,640	67,489	50,151
Maine	9,443	9,443	0	5,600	4,221	1,379
Massachusetts	346,493	330,188	16,305	185,988	92,782	93,206
New Hampshire	27,408	27,408	0	9,397	3,969	5,428
Rhode Island	35,960	35,390	570	43,575	15,647	27,928
Vermont	6,078	6,078	0	11,825	346	11,479
Middle Atlantic	**2,051,686**	**1,966,164**	**85,522**	**2,036,474**	**1,414,345**	**622,129**
New Jersey	547,235	505,012	42,223	437,716	222,543	215,173
New York	776,785	754,657	22,128	657,902	417,578	240,324
Pennsylvania	727,666	706,495	21,171	940,856	774,224	166,632
East North Central	**3,453,184**	**3,379,110**	**74,074**	**4,507,256**	**3,629,561**	**877,695**
Illinois	1,073,937	1,071,185	2,752	1,241,307	989,137	252,170
Indiana	366,919	344,008	22,911	880,325	771,444	108,881
Michigan	870,387	863,360	7,027	952,043	805,810	146,233
Ohio	845,028	838,542	6,486	842,742	794,163	48,579
Wisconsin	296,913	262,015	34,898	590,839	269,007	321,832
West North Central	**1,437,582**	**1,210,632**	**226,950**	**1,644,708**	**720,949**	**923,759**
Iowa	248,967	212,580	36,387	367,104	243,542	123,562
Kansas	185,459	126,386	59,073	486,058	166,128	319,930
Minnesota	308,263	270,237	38,026	385,903	140,226	245,677
Missouri	424,346	365,236	59,110	211,407	87,573	123,834
Nebraska	166,779	151,289	15,490	163,628	77,744	85,884
North Dakota	61,675	46,065	15,610	5,811	83	5,728
South Dakota	42,093	38,839	3,254	24,797	5,653	19,144
South Atlantic	**1,455,726**	**1,285,399**	**170,327**	**2,229,593**	**1,164,353**	**1,065,240**
Delaware	24,542	23,522	1,020	71,449	53,261	18,188
District of Columbia	126,067	91,118	34,949	0	0	0
Florida	157,166	144,370	12,796	265,878	58,914	206,964
Georgia	313,361	312,783	578	608,331	86,294	522,037
Maryland	217,815	163,450	54,365	198,745	145,472	53,273
North Carolina	155,352	155,352	0	398,569	372,535	26,034
South Carolina	98,367	79,295	19,072	322,569	150,323	172,246
Virginia	245,939	202,896	43,043	232,941	166,942	65,999
West Virginia	117,117	112,613	4,504	131,111	130,612	499
East South Central	**594,309**	**552,851**	**41,458**	**1,358,124**	**827,088**	**531,036**
Alabama	145,177	126,850	18,327	472,231	257,513	214,718
Kentucky	153,922	144,735	9,187	237,431	132,477	104,954
Mississippi	72,866	72,859	7	243,499	233,310	10,189
Tennessee	222,344	208,407	13,937	404,963	203,788	201,175
West South Central	**1,151,869**	**1,134,543**	**17,326**	**3,725,564**	**2,066,414**	**1,659,150**
Arkansas	120,754	120,187	567	291,405	245,602	45,803
Louisiana	146,938	146,459	479	474,818	343,341	131,477
Oklahoma	190,186	178,294	11,892	587,260	305,191	282,069
Texas	693,991	689,603	4,388	2,372,081	1,172,280	1,199,801
Mountain	**840,457**	**836,064**	**4,393**	**740,741**	**381,230**	**359,511**
Arizona	116,058	116,058	0	147,535	147,285	250
Colorado	328,804	327,308	1,496	166,843	25,786	141,057
Idaho	48,448	48,448	0	70,791	67,888	2,903
Montana	65,798	63,979	1,819	45,196	5,233	39,963
Nevada	71,174	71,174	0	27,398	27,398	0
New Mexico	75,356	74,480	876	64,688	63,899	789
Utah	83,282	83,282	0	152,731	29,785	122,946
Wyoming	51,537	51,335	202	65,559	13,956	51,603
Pacific	**1,629,268**	**1,496,077**	**133,191**	**2,088,000**	**339,721**	**1,748,279**
Alaska	9,252	9,252	0	11,870	11,870	0
California	1,307,054	1,229,466	77,588	1,536,566	97,486	1,439,080
Hawaii	7,933	6,240	1,693	26,594	26,594	0
Oregon	111,448	108,425	3,023	191,269	76,716	114,553
Washington	193,581	142,694	50,887	321,701	127,055	194,646

*Does not include electric generation.

TABLE 7-7
REVENUES FROM GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION, 1960–1984

(Thousands)

Industry Classification	1960	1965	1970	1975	1980	1983	1984
Agriculture, forestry and fisheries	$ 3,447	$ 4,553	$ 13,373	$ 41,816	$ 137,952	$ 151,737	$ 211,220
Petroleum and natural gas production	13,023	23,092	29,116	67,556	90,824	171,360	272,825
Other mining	10,738	18,697	18,744	44,664	214,732	158,727	117,679
Electric services[a]	366,946	461,037	750,879	1,482,516	6,750,928	8,093,317	8,891,491
Other transportation, communication, and public utilities	6,212	12,867	36,820	99,971	276,149	360,545	434,374
Hotels, rooming houses, and camps	5,225	12,317	34,089	85,216	97,974	167,228	192,560
Laundries, cleaning and dyeing	1,495	7,969	12,508	30,095	76,146	157,599	164,480
Other services	11,615	25,434	82,737	274,992	1,025,544	1,881,167	1,975,265
Other non-manufacturing	13,826	32,472	105,186	228,982	571,193	1,349,024	1,480,279
Ordnance	5,362	5,938	14,216	b	b	b	b
Food and kindred products	57,331	88,419	140,016	352,172	991,498	1,317,633	1,343,174
Textile products, apparel, fabrics, etc.	7,459	16,613	32,563	58,468	191,077	289,474	314,526
Furniture, lumber, and other wood products	7,452	18,713	25,097	65,210	166,086	284,627	205,876
Paper and allied products	54,020	80,392	137,086	258,795	760,852	894,993	894,562
Carbon black	2,435	9,198	12,613	26,646	65,844	17,963	12,989
Chemicals and allied products (except carbon black)	154,556	208,820	303,261	821,397	2,158,091	2,334,915	2,374,888
Petroleum refining	87,605	88,023	167,312	502,402	1,333,883	1,036,997	631,828
Rubber and miscellaneous plastic products	5,454	12,314	20,483	47,694	164,015	220,497	241,412
Glass products	59,693	73,844	92,362	183,233	524,302	641,836	605,678
Cement	47,540	52,129	81,001	130,210	135,038	49,481	56,142
Clay products, pottery, etc.	49,764	60,873	63,707	111,670	250,795	246,489	254,647
Other stone products and miscellaneous	11,335	26,502	61,841	103,389	277,504	254,832	317,321
Primary iron and steel industries	149,646	232,470	313,595	568,959	1,533,627	1,413,846	1,534,252
Primary non-ferrous industries	58,181	88,218	89,949	268,145	768,053	798,211	781,787
Fabricated metal products, machinery equipment and supplies	55,360	93,760	162,290	319,800	729,513	945,658	1,058,405
Transportation equipment	30,767	53,093	92,514	194,678	286,168	349,068	444,571
Other manufacturing	13,053	23,883	45,777	129,238	377,918	431,566	668,862
Public Administration	c	c	c	74,956	227,343	494,850	465,484
Unclassified[d]	500,856	565,048	608,138	4,377,080	11,861,154	16,501,329	15,546,292
Total Gas Utility Industry Commercial, Industrial and "Other" revenues[a,e]	**$1,790,396**	**$2,396,688**	**$3,547,273**	**$10,949,950**	**$32,044,303**	**$41,014,969**	**$41,492,869**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$1,514,995**	**$2,123,185**	**$3,028,083**	**$ 9,473,153**	**$23,675,795**	**$28,805,953**	**$29,805,347**
Transfers[a]	**$ 73,887**	**$ 72,919**	**$ 92,443**	**$ 293,936**	**$ 1,173,364**	**$ 1,351,422**	**$ 1,481,561**

a. Includes "revenues" detailed as transfers of gas for electric generation which are not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department to the gas department of combination gas and electric companies.
b. Classification eliminated.
c. New classification in 1972.
d. Difference between total and classified revenues.
e. Includes Industrial and "Other" sales only prior to 1971.
Note: Prior to 1982 only large volume sales detailed by SIC.

TABLE 7-8
GAS UTILITY INDUSTRY REVENUES BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1984

(Thousands)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	$ 211,220	$ 3,141	$ 3,980	$ 34,941	$ 34,069	$ 1,381	$ 5,864	$ 44,394	$ 12,225	$ 71,225
Petroleum and natural gas production	272,825	3	541	29,086	173,121	0	4,407	3,360	18,326	43,981
Other mining	117,679	2	1,409	18,140	4,672	26,539	226	24,995	20,849	20,847
Electric services*	8,891,491	166,843	1,234,908	62,483	82,369	452,468	158,867	3,475,648	237,473	3,020,432
Other transportation, communication, and public utilities	434,374	26,122	30,285	86,482	79,114	8,899	11,220	52,327	13,936	125,989
Hotels, rooming houses, and camps	192,560	5,740	29,845	49,637	18,923	8,233	5,706	1,574	5,068	67,834
Laundries, cleaning and dyeing	164,480	5,006	15,528	42,978	5,228	9,624	6,535	738	731	78,112
Other services	1,975,265	61,568	207,250	792,672	172,789	102,370	79,568	52,850	44,274	461,924
Other non-manufacturing	1,480,279	110,849	239,784	551,720	105,136	40,172	48,155	5,034	22,599	356,830
Food and kindred products	1,343,174	13,179	160,685	359,904	221,271	105,721	51,835	33,592	59,790	337,197
Textile products, apparel, fabrics, etc.	314,526	20,304	25,350	18,995	1,431	190,081	28,586	2,807	302	26,670
Furniture, lumber, and other wood products	205,876	703	12,566	34,344	6,640	31,002	23,432	30,285	2,583	64,321
Paper and allied products	894,562	19,071	105,625	227,762	24,204	113,651	131,982	14,148	34,595	223,524
Carbon black	12,989	0	0	3,655	0	3,247	728	2,944	0	2,415
Chemicals and allied products (except carbon black)	2,374,888	16,132	153,819	417,777	255,686	433,617	147,865	759,418	33,255	157,319
Petroleum refining	631,828	4	26,683	70,104	33,870	40,658	19,246	106,903	35,158	299,202
Rubber and miscellaneous plastic products	241,412	4,614	30,251	84,530	21,542	29,269	31,197	17,328	525	22,156
Glass products	605,678	14,579	178,321	119,700	18,014	83,786	49,950	32,534	0	108,794
Cement	56,142	0	556	3,391	7,620	17,456	5,201	2,149	6,170	13,599
Clay products, pottery, etc.	254,647	2,843	25,537	37,372	31,288	90,119	24,703	8,002	4,405	30,378
Other stone products and miscellaneous	317,321	7,168	43,205	52,068	32,881	82,180	10,730	826	20,353	67,910
Primary iron and steel industries	1,534,252	12,747	273,655	872,447	84,171	116,518	116,327	5,042	4,730	48,615
Primary non-ferrous industries	781,787	10,611	85,910	281,062	34,662	24,130	41,536	101,257	95,706	106,913
Fabricated metal products, machinery equipment and supplies	1,058,405	36,043	168,295	501,037	69,840	53,872	58,609	22,631	10,303	137,775
Transportation equipment	444,571	7,685	44,533	243,190	43,152	22,680	16,879	8,101	3,950	54,401
Other manufacturing	668,862	15,544	92,011	163,505	24,825	33,402	43,862	207,287	10,729	77,697
Public administration	465,484	11,157	63,650	71,382	47,349	87,022	31,864	39,263	12,568	101,229
Unclassified	14,064,731	577,039	2,308,839	2,836,539	1,554,564	1,967,433	1,016,558	3,494,792	1,177,293	613,235
Total Gas Utility Industry Commercial, Industrial and "Other" revenues*	**$41,513,839**	**$1,148,697**	**$5,563,021**	**$8,066,903**	**$3,188,431**	**$4,175,530**	**$2,171,638**	**$8,550,229**	**$1,887,896**	**$6,740,524**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$29,805,347**	**$ 713,166**	**$3,873,788**	**$6,697,715**	**$2,436,979**	**$3,264,435**	**$1,344,360**	**$4,028,279**	**$1,146,719**	**$6,299,906**
Transfers*	**$ 1,481,561**	**$ 8,473**	**$ 893,766**	**$ 6,795**	**$ 12,262**	**$ 40,835**	**$ 4,355**	**$ 460,933**	**$ 54,142**	**$ 0**

* Includes "revenues" detailed as transfers of gas for electric generation which are not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department of combination gas and electric companies.

TABLE 7-9
GAS UTILITY INDUSTRY REVENUES FROM GAS USED FOR ELECTRIC GENERATION, 1960-1984[a]

(Thousands)

Year	Revenue				Credits[c]	Total Revenue and Credits
	Industrial[b]					
	Firm	Interruptible	Other	Total Revenue		
1960		$228,474	$ 64,585	$ 293,059	$ 73,887	$ 366,946
1961		247,811	75,437	323,248	74,988	398,236
1962		264,637	86,810	351,447	75,747	427,194
1963		282,932	96,808	379,740	73,517	453,257
1964		304,974	107,193	412,167	77,919	490,086
1965		293,999	94,119	388,118	72,919	461,037
1966		325,605	114,051	439,656	73,073	512,729
1967		346,912	96,643	443,555	75,298	518,853
1968		380,995	117,159	498,154	80,816	578,970
1969		426,325	112,454	538,779	71,747	610,526
1970		520,882	137,553	658,435	92,443	750,878
1971	$ 237,111	$ 335,539	160,035	732,685	201,213	933,898
1972	277,344	294,885	201,865	774,094	193,655	967,749
1973	185,106	309,653	214,419	709,178	197,418	906,596
1974	271,516	395,889	225,124	892,529	269,148	1,161,677
1975	352,660	473,951	361,969	1,188,580	293,936	1,482,516
1976	594,784	1,075,885	d	1,670,669	315,935	1,986,604
1977	779,919	1,535,133	d	2,315,052	379,274	2,694,326
1978	953,406	1,452,434	d	2,405,840	330,572	2,736,412
1979	1,424,871	2,063,626	d	3,488,497	721,948	4,210,445
1980	2,417,592	3,159,972	d	5,577,564	1,173,364	6,750,928
1981	3,037,233	4,273,885	d	7,311,118	1,213,728	8,524,846
1982	3,075,361	4,832,346	d	7,907,707	1,321,944	9,229,651
1983[R]	2,486,220	4,253,117	d	6,739,337	1,351,422	8,090,759
1984	2,536,680	4,852,280	d	7,388,960	1,481,561	8,870,521

a. Excludes revenues from direct sales by producers to straight electric utilities.
b. No breakdown available prior to 1971.
c. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.
R – Revised.

TABLE 7-10
GAS UTILITY INDUSTRY REVENUES, GAS USED FOR ELECTRIC GENERATION, BY STATE, 1984

(Thousands)

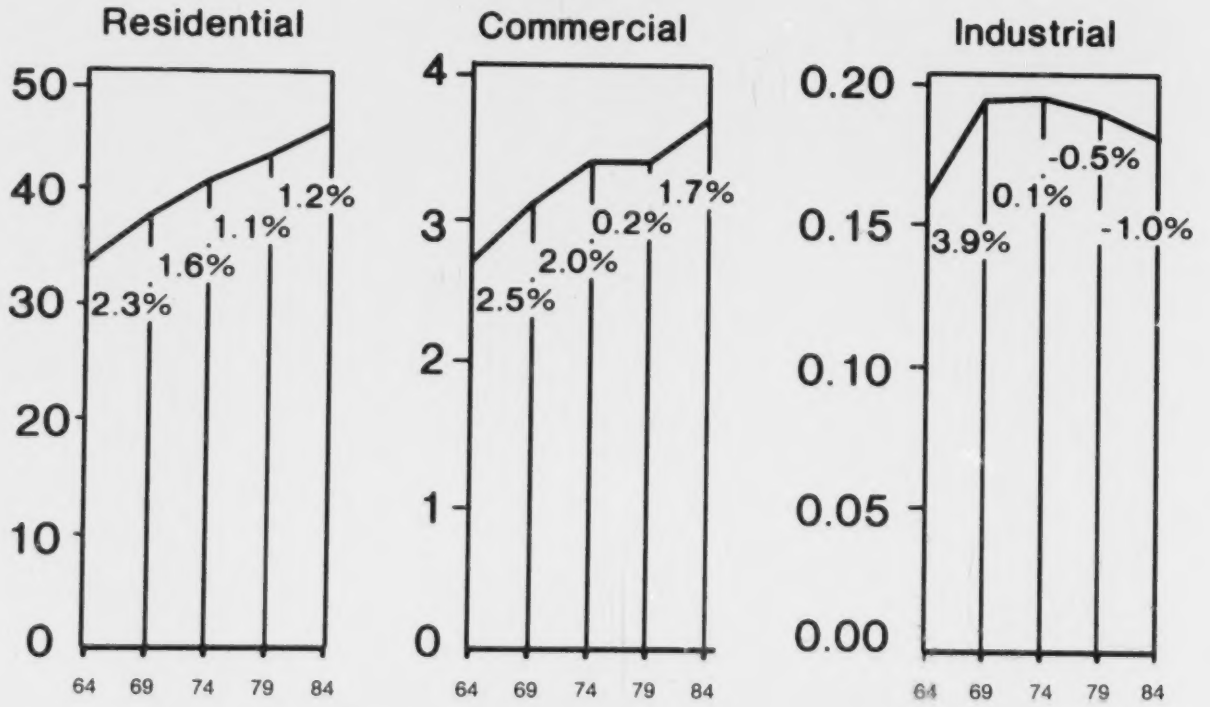
Division and State	Industrial Revenue			Credits[b]	Total Revenue and Credits
	Firm	Interruptible	Total		
United States	**$2,536,680**	**$4,852,280**	**$7,388,960**	**$1,481,561**	**$8,870,521**
New England	**1,141**	**157,229**	**158,370**	**8,473**	**166,843**
Connecticut	0	0	0	8,473	8,473
Maine	0	0	0	0	0
Massachusetts	1,141	142,615	143,756	0	143,756
New Hampshire	0	0	0	0	0
Rhode Island	0	14,614	14,614	0	14,614
Vermont	0	0	0	0	0
Middle Atlantic	**4,827**	**335,984**	**340,811**	**893,766**	**1,234,577**
New Jersey	1,133	85,572	86,705	309,979	396,684
New York	510	249,586	250,096	583,696	833,792
Pennsylvania	3,184	826	4,010	91	4,101
East North Central	**30,909**	**18,648**	**49,557**	**6,795**	**56,352**
Illinois	24,223	7,715	31,938	1,265	33,203
Indiana	824	0	824	5,209	6,033
Michigan	3,876	2,260	6,136	0	6,136
Ohio	1,204	976	2,180	321	2,501
Wisconsin	782	7,697	8,479	0	8,479
West North Central	**7,386**	**60,977**	**68,363**	**12,262**	**80,625**
Iowa	1,470	5,815	7,285	2,255	9,540
Kansas	1,936	42,154	44,090	5,519	49,609
Minnesota	356	6,660	7,016	4,199	11,215
Missouri	775	5,169	5,944	221	6,165
Nebraska	2,849	994	3,843	3	3,846
North Dakota	0	54	54	0	54
South Dakota	0	131	131	65	196
South Atlantic	**473**	**410,585**	**411,058**	**40,835**	**451,893**
Delaware	0	0	0	23,130	23,130
District of Columbia	0	0	0	0	0
Florida	473	405,897	406,370	0	406,370
Georgia	0	3,028	3,028	0	3,028
Maryland	0	0	0	3,138	3,138
North Carolina	0	1,074	1,074	0	1,074
South Carolina	0	0	0	742	742
Virginia	0	0	0	13,825	13,825
West Virginia	0	586	586	0	586
East South Central	**120,869**	**33,619**	**154,488**	**4,355**	**158,843**
Alabama	64	275	339	0	339
Kentucky	0	0	0	3,919	3,919
Mississippi	120,805	33,211	154,016	0	154,016
Tennessee	0	133	133	436	569
West South Central	**2,143,092**	**871,621**	**3,014,713**	**460,933**	**3,475,646**
Arkansas	76,683	6	76,689	0	76,689
Louisiana	162,079	18,795	180,874	105,081	285,955
Oklahoma	29,222	10,913	40,135	178,737	218,872
Texas	1,875,108	841,907	2,717,015	177,115	2,894,130
Mountain	**161,522**	**21,809**	**183,331**	**54,142**	**237,473**
Arizona	65,780	867	66,647	36,461	103,108
Colorado	9	20,623	20,632	923	21,555
Idaho	0	0	0	0	0
Montana	0	319	319	164	483
Nevada	45,398	0	45,398	16,594	61,992
New Mexico	50,335	0	50,335	0	50,335
Utah	0	0	0	0	0
Wyoming	0	0	0	0	0
Pacific	**66,461**	**2,941,808**	**3,008,269**	**0**	**3,008,269**
Alaska	0	26,390	26,390	0	26,390
California	66,461	2,915,071	2,981,532	0	2,981,532
Hawaii	0	0	0	0	0
Oregon	0	347	347	0	347
Washington	0	0	0	0	0

a. Excludes revenues from direct sales by producers to electric utilities.
b. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.

SECTION 8
CUSTOMERS

	Average Customers	
	1984	% Change 84/83
Gas Utility Industry		
(Thousands)		
Total	49,324.8	+1.1
Residential	45,367.0	+1.1
Commercial	3,730.3	+1.5
Industrial	180.2	−1.1
Other	47.3	+1.1

GAS UTILITY INDUSTRY CUSTOMERS
(MILLIONS)



% Equals Compound Annual Growth Rates

REFERENCE: TABLE 8-1

CUSTOMERS

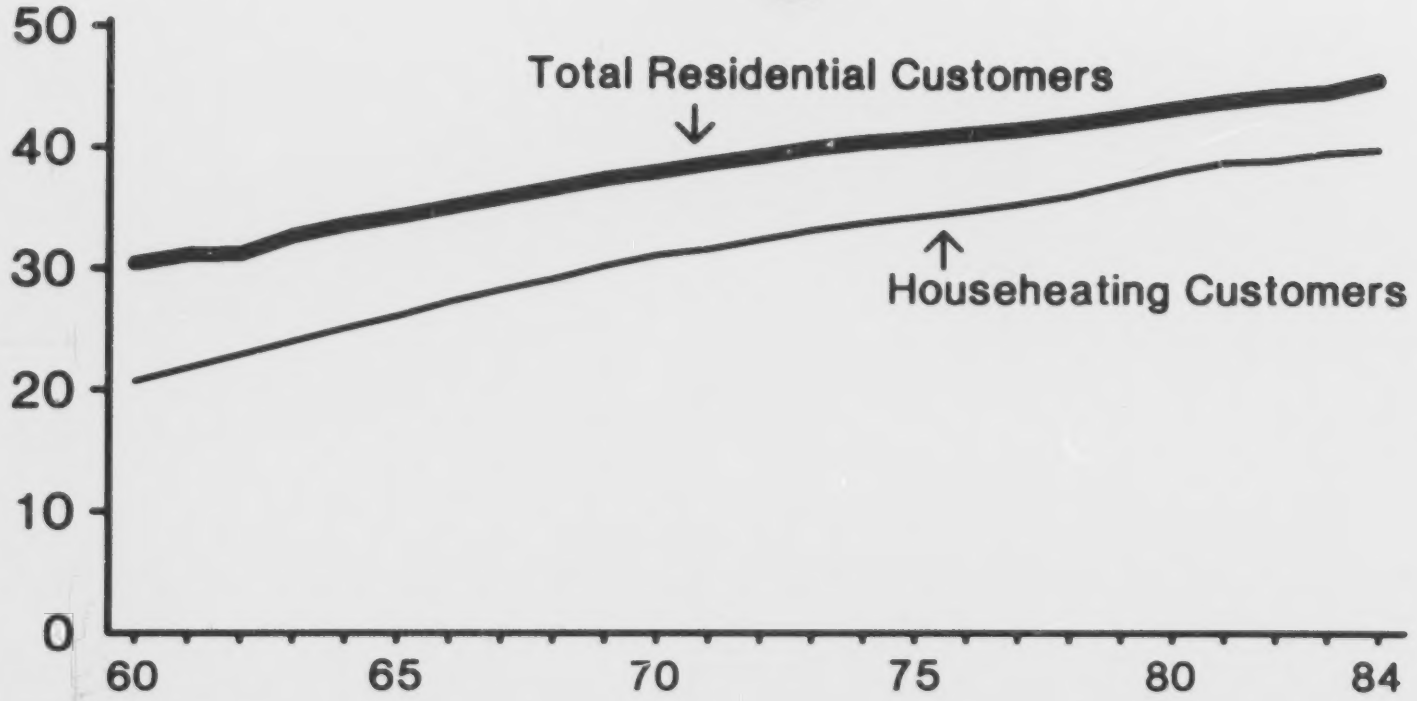
TABLE 8-1
GAS UTILITY INDUSTRY CUSTOMERS, BY CLASS OF SERVICE, YEARLY AVERAGES, 1960-1984[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	33,053.8	30,417.5	2,458.3	140.6	37.4
1961	33,830.5	31,118.2	2,528.9	146.7	36.7
1962	34,683.4	31,893.0	2,597.9	155.9	36.6
1963	35,551.0	32,710.8	2,639.6	161.7	38.9
1964	36,463.3	33,551.2	2,712.2	159.4	40.5
1965	37,337.5	34,340.8	2,789.7	166.2	40.8
1966	38,228.4	35,141.8	2,868.2	173.9	44.5
1967	39,076.5	35,915.1	2,933.6	181.2	46.6
1968	39,930.0	36,691.1	3,003.6	188.1	47.2
1969	40,854.0	37,538.3	3,073.8	192.7	49.2
1970	41,482.1	38,097.0	3,130.9	199.1	55.1
1971	42,241.9	38,788.7	3,199.0	204.7	49.5
1972	42,954.8	39,428.0	3,263.6	209.2	54.1
1973	43,711.2	40,115.5	3,331.4	209.1	55.2
1974	44,267.2	40,626.7	3,392.0	193.8	54.7
1975	44,554.5	40,950.3	3,366.9	183.5	53.8
1976	44,941.4	41,337.6	3,371.5	179.7	52.6
1977	45,274.0	41,682.4	3,371.0	173.3	47.3
1978	45,788.9	42,183.2	3,369.8[c]	189.2[c]	46.7
1979	46,478.3	42,821.3	3,422.8	189.4	44.8
1980	47,225.1	43,489.4	3,499.9	187.2	48.6
1981	47,947.5	44,149.3	3,564.5	187.2	46.5
1982	48,414.9	44,552.3	3,631.1	186.1	45.4
1983[R]	48,799.2	44,893.8	3,676.3	182.2	46.8
1984	49,324.8	45,367.0	3,730.3	180.2	47.3

a. Excludes data for Alaska prior to 1961.
b. Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.
c. Reclassification of customers from commercial to industrial.
R—Revised.

GAS UTILITY HOUSEHEATING CUSTOMERS (MILLIONS)



REFERENCE: TABLE 8-6

CUSTOMERS

TABLE 8-2
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY QUARTER, 1960-1984

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	32,882	30,220	2,486	139	37
Second	32,685	30,098	2,409	141	37
Third	32,638	30,099	2,363	140	36
Fourth	33,508	30,802	2,524	141	41
1965					
First	37,174	34,156	2,814	163	41
Second	36,963	34,014	2,743	165	41
Third	36,932	34,021	2,704	167	40
Fourth	37,967	34,886	2,870	169	42
1970					
First	41,491	38,063	3,175	199	54
Second	41,419	38,058	3,109	199	53
Third	41,080	37,773	3,054	198	55
Fourth	41,939	38,494	3,186	201	58
1975					
First	44,762	41,099	3,406	194	63
Second	44,386	40,806	3,348	181	51
Third	44,233	40,686	3,322	177	48
Fourth	44,839	41,210	3,393	182	54
1977					
First	45,689	42,005	3,454	175	55
Second	45,047	41,476	3,347	173	51
Third	44,633	41,140	3,282	170	41
Fourth	45,725	42,108	3,400	175	42
1978					
First	45,931	42,285	3,410	190	47
Second	45,761	42,149	3,376	190	47
Third	45,468	41,918	3,316	188	46
Fourth	45,996	42,382	3,378	189	47
1979					
First	46,553	42,869	3,449	190	45
Second	46,410	42,754	3,422	190	45
Third	46,242	42,035	3,375	189	44
Fourth	46,708	43,027	3,446	189	45
1980					
First	47,394	43,605	3,552	188	49
Second	47,190	43,443	3,511	187	49
Third	46,873	43,210	3,429	186	48
Fourth	47,444	43,699	3,509	187	49
1981					
First	48,159	44,315	3,609	188	47
Second	47,942	44,140	3,567	188	47
Third	47,573	43,839	3,503	186	45
Fourth	48,116	44,303	3,580	186	47
1982					
First	48,723	44,803	3,687	188	45
Second	48,429	44,558	3,638	187	46
Third	47,990	44,197	3,564	184	45
Fourth	48,517	44,650	3,636	185	46
1983[R]					
First	49,089	45,127	3,731	184	47
Second	48,813	44,900	3,683	183	47
Third	48,348	44,512	3,609	181	46
Fourth	48,946	45,035	3,683	181	47
1984					
First	49,587	45,585	3,773	181	48
Second	49,322	45,363	3,732	180	47
Third	48,896	45,004	3,666	179	47
Fourth	49,494	45,516	3,751	180	47

* Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.
R—Revised.

TABLE 8-3
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY STATE, 1960-1984[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**33,053.8**	**37,337.5**	**41,482.1**	**44,554.5**	**47,225.1**	**48,799.2**	**49,324.8**
New England	**1,622.6**	**1,641.6**	**1,692.3**	**1,692.5**	**1,734.6**	**1,787.2**	**1,808.6**
Connecticut	376.7	378.8	393.7	392.5	405.0	421.3	426.3
Maine	33.4	28.5	23.4	18.1	15.0	15.4	15.3
Massachusetts	1,002.3	1,024.7	1,055.3	1,055.4	1,079.3	1,102.8	1,114.4
New Hampshire	37.4	40.2	44.1	45.4	50.9	53.6	55.1
Rhode Island	155.9	154.5	161.4	164.6	168.9	177.9	180.6
Vermont	16.9	14.9	14.4	16.6	15.4	16.3	17.0
Middle Atlantic	**7,607.6**	**7,919.6**	**8,192.1**	**8,230.3**	**8,111.4**	**8,248.8**	**8,290.4**
New Jersey	1,504.9	1,640.6	1,763.1	1,815.1	1,849.1	1,894.2	1,916.2
New York	3,953.5	4,076.4	4,125.6	4,102.5	3,925.5	3,978.7	3,997.7
Pennsylvania	2,149.2	2,202.5	2,303.4	2,312.7	2,336.8	2,375.9	2,376.5
East North Central	**7,318.9**	**8,400.3**	**9,508.7**	**10,253.1**	**10,777.8**	**10,966.3**	**11,026.8**
Illinois	2,279.4	2,634.6	2,938.4	3,134.2	3,304.2	3,326.9	3,338.4
Indiana	780.0	933.8	1,084.4	1,187.7	1,241.1	1,289.6	1,298.7
Michigan	1,502.1	1,732.9	2,018.5	2,234.5	2,443.3	2,503.7	2,522.0
Ohio	2,208.4	2,424.2	2,644.5	2,757.8	2,746.5	2,768.0	2,775.1
Wisconsin	549.0	674.8	822.9	939.0	1,042.7	1,078.2	1,092.6
West North Central	**2,655.5**	**3,074.7**	**3,499.9**	**3,820.4**	**4,126.5**	**4,287.6**	**4,329.3**
Iowa	440.4	541.9	642.1	691.6	745.4	761.6	762.6
Kansas	532.8	586.5	643.1	669.8	723.0	766.5	774.6
Minnesota	476.1	560.9	640.9	726.8	809.4	878.8	892.6
Missouri	816.8	933.4	1,068.2	1,167.1	1,218.4	1,222.7	1,230.0
Nebraska	288.4	330.2	367.7	400.5	442.4	457.5	466.7
North Dakota	39.4	47.4	55.2	71.3	85.7	92.6	93.9
South Dakota	61.6	74.4	82.6	93.1	102.4	107.8	108.9
South Atlantic	**2,507.3**	**2,995.6**	**3,528.9**	**3,861.9**	**4,042.2**	**4,256.3**	**4,319.0**
Delaware	64.2	73.3	81.4	82.8	81.5	83.1	84.2
District of Columbia	177.3	172.4	162.8	155.4	148.6	146.1	145.4
Florida	244.1	294.2	370.1	391.8	433.0	454.4	455.6
Georgia	534.9	670.9	804.4	912.3	1,025.9	1,113.8	1,149.8
Maryland	558.7	639.6	712.5	774.6	773.5	792.4	796.8
North Carolina	121.6	193.2	285.2	338.0	366.7	416.4	429.2
South Carolina	87.0	154.7	233.3	283.1	296.2	312.1	315.4
Virginia	361.8	432.7	497.3	528.4	523.2	547.0	553.2
West Virginia	357.2	364.6	381.9	395.4	393.6	391.0	389.4
East South Central	**1,470.9**	**1,699.6**	**1,947.2**	**2,139.2**	**2,211.6**	**2,252.2**	**2,270.2**
Alabama	453.3	522.1	588.8	637.1	679.0	683.3	686.4
Kentucky	432.9	506.0	583.0	631.3	626.7	642.0	642.1
Mississippi	271.2	310.6	347.3	380.3	396.7	399.6	401.4
Tennessee	313.5	360.9	428.1	490.5	509.3	527.3	540.4
West South Central	**3,840.3**	**4,329.9**	**4,758.5**	**5,092.0**	**5,509.8**	**5,763.6**	**5,815.3**
Arkansas	299.1	362.1	419.3	461.4	489.9	520.4	525.4
Louisiana	701.2	804.7	871.3	935.9	1,002.3	1,006.8	1,001.8
Oklahoma	602.8	648.7	697.6	740.5	816.4	887.4	898.4
Texas	2,237.2	2,514.4	2,770.3	2,954.2	3,201.2	3,348.8	3,389.8
Mountain	**1,267.8**	**1,587.3**	**1,892.9**	**2,311.6**	**2,700.3**	**2,888.1**	**2,958.1**
Arizona	300.3	374.1	447.5	554.1	579.1	590.3	593.5
Colorado	388.4	485.7	586.5	688.8	850.1	935.0	971.2
Idaho	27.0	52.2	79.0	107.5	108.6	112.2	114.6
Montana	118.6	137.6	150.8	173.4	182.7	187.4	188.5
Nevada	24.6	47.8	72.4	112.2	168.2	185.1	193.2
New Mexico	176.6	203.8	231.8	278.9	327.6	349.3	357.4
Utah	166.5	211.9	243.8	297.4	361.0	400.3	412.2
Wyoming	65.8	74.2	81.1	99.2	122.9	128.4	127.6
Pacific	**4,762.9**	**5,688.9**	**6,461.6**	**7,153.5**	**8,010.8**	**8,349.1**	**8,507.0**
Alaska	b	6.1	17.4	29.1	42.1	57.4	65.4
California	4,506.6	5,311.1	5,919.4	6,495.1	7,286.3	7,585.6	7,721.0
Hawaii	39.8	36.2	36.1	34.8	33.2	32.8	32.7
Oregon	105.6	146.2	197.5	248.2	275.3	288.6	295.9
Washington	110.9	189.3	291.2	346.3	373.9	384.7	392.0

a. Excludes customers purchasing for resale.
b. Not available.
R—Revised.

CUSTOMERS

TABLE 8-4
GAS UTILITY INDUSTRY CUSTOMERS, BY STATE AND CLASS OF SERVICE, AVERAGES, 1984

(Thousands)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**49,324.8**	**45,367.0**	**3,730.3**	**179.6**	**0.5**	**47.3**
New England	**1,808.6**	**1,658.7**	**136.8**	**9.1**	**a**	**4.0**
Connecticut	426.3	388.2	35.6	2.5	0.0	0.1
Maine	15.3	12.4	2.9	0.1	0.0	0.0
Massachusetts	1,114.4	1,028.7	77.2	5.2	a	3.3
New Hampshire	55.1	47.8	7.0	0.2	0.0	0.2
Rhode Island	180.6	166.8	12.5	1.3	a	a
Vermont	17.0	14.8	1.7	a	0.0	0.5
Middle Atlantic	**8,290.4**	**7,677.1**	**580.3**	**22.4**	**a**	**10.6**
New Jersey	1,916.2	1,726.3	183.4	6.5	a	a
New York	3,997.7	3,732.0	246.8	10.0	a	8.8
Pennsylvania	2,376.5	2,218.8	150.1	5.9	a	1.8
East North Central	**11,026.8**	**10,168.2**	**807.2**	**47.4**	**0.1**	**3.9**
Illinois	3,338.4	3,068.1	250.8	18.5	a	0.9
Indiana	1,298.7	1,187.1	106.3	4.7	a	0.5
Michigan	2,522.0	2,346.2	166.2	9.6	a	0.0
Ohio	2,775.1	2,569.0	197.1	6.5	a	2.5
Wisconsin	1,092.6	997.8	86.9	8.0	a	a
West North Central	**4,329.3**	**3,903.6**	**410.7**	**13.0**	**0.2**	**1.8**
Iowa	762.6	679.6	81.0	1.7	a	0.3
Kansas	774.6	696.0	73.7	4.6	0.1	0.3
Minnesota	892.6	809.8	78.4	4.0	a	0.3
Missouri	1,230.0	1,133.9	94.5	0.9	a	0.7
Nebraska	466.7	405.0	60.2	1.3	a	0.2
North Dakota	93.9	82.6	11.3	a	a	0.0
South Dakota	108.9	96.7	11.7	0.5	a	a
South Atlantic	**4,319.0**	**3,952.6**	**346.5**	**14.4**	**a**	**5.5**
Delaware	84.2	78.7	5.2	0.2	0.0	0.1
District of Columbia	145.4	130.6	14.8	0.0	0.0	0.0
Florida	455.6	417.6	36.7	0.5	a	0.9
Georgia	1,149.8	1,062.7	81.3	2.5	a	3.3
Maryland	796.8	740.1	51.6	5.1	0.0	0.1
North Carolina	429.2	379.3	47.6	2.2	a	0.1
South Carolina	315.4	283.0	30.7	1.2	0.0	1.3
Virginia	553.2	503.2	46.9	2.4	0.0	0.6
West Virginia	389.4	357.4	31.6	0.3	a	0.1
East South Central	**2,270.2**	**2,045.9**	**207.7**	**6.4**	**a**	**10.3**
Alabama	686.4	634.0	47.9	1.9	a	2.6
Kentucky	642.1	582.8	56.7	1.3	0.0	1.3
Mississippi	401.4	361.6	36.9	1.1	a	1.8
Tennessee	540.4	467.5	66.2	2.1	0.0	4.6
West South Central	**5,815.3**	**5,306.2**	**479.4**	**22.0**	**0.1**	**7.6**
Arkansas	525.4	464.5	59.2	1.6	a	0.1
Louisiana	1,001.8	932.0	66.4	2.2	a	1.2
Oklahoma	898.4	811.7	83.2	3.2	a	0.2
Texas	3,389.8	3,098.0	270.6	14.9	0.1	6.1
Mountain	**2,958.1**	**2,679.4**	**268.7**	**6.7**	**a**	**3.3**
Arizona	593.5	546.9	44.4	1.6	a	0.5
Colorado	971.2	868.6	101.0	1.4	a	0.1
Idaho	114.6	98.5	15.9	0.2	0.0	0.0
Montana	188.5	167.3	20.7	0.5	0.0	0.1
Nevada	193.2	177.4	15.7	0.1	a	a
New Mexico	357.4	320.4	32.1	2.3	a	2.5
Utah	412.2	386.5	25.2	0.5	0.0	a
Wyoming	127.6	113.9	13.6	0.2	0.0	a
Pacific	**8,507.0**	**7,975.2**	**493.2**	**38.3**	**a**	**0.3**
Alaska	65.4	57.2	7.2	1.0	a	0.0
California	7,721.0	7,287.0	401.8	31.9	a	0.3
Hawaii	32.7	28.8	2.1	1.7	0.0	0.0
Oregon	295.9	258.4	36.8	0.7	a	0.0
Washington	392.0	343.7	45.3	3.0	0.0	a

a. Less than 0.05 thousand.

TABLE 8-5
GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS, BY STATE
YEARLY AVERAGES FOR 1970–1984

(Thousands)

Division and State	1970	1975	1980	1983	1984	
					Number	Saturation*
United States	**31,208.7**	**34,371.4**	**38,162.6**	**39,799.2**	**40,037.0**	**88.3**
New England	**778.8**	**857.1**	**1,008.8**	**1,080.1**	**1,113.2**	**67.1**
Connecticut	181.0	195.8	216.3	240.5	256.4	66.0
Maine	5.7	4.8	6.7	9.5	9.4	76.1
Massachusetts	443.3	531.5	635.6	664.9	677.4	65.8
New Hampshire	24.2	28.0	36.0	36.7	38.3	80.1
Rhode Island	116.0	86.3	103.0	116.4	119.0	71.3
Vermont	8.6	10.7	11.2	12.1	12.7	85.9
Middle Atlantic	**3,827.2**	**4,127.7**	**4,514.6**	**4,841.5**	**4,909.5**	**63.9**
New Jersey	713.7	793.4	942.6	1,066.1	1,105.3	64.0
New York	1,536.7	1,686.2	1,797.0	1,901.0	1,915.3	51.3
Pennsylvania	1,576.8	1,648.1	1,775.0	1,874.4	1,888.9	85.1
East North Central	**7,527.9**	**8,432.0**	**9,166.2**	**9,502.6**	**9,583.5**	**94.2**
Illinois	2,107.4	2,390.9	2,616.6	2,708.9	2,734.3	89.1
Indiana	813.0	947.6	1,049.9	1,134.9	1,144.6	96.4
Michigan	1,647.3	1,901.2	2,162.0	2,256.1	2,278.6	97.1
Ohio	2,379.2	2,482.0	2,507.3	2,515.8	2,520.8	98.1
Wisconsin	581.0	710.3	830.4	886.9	905.2	90.7
West North Central	**2,915.5**	**3,260.7**	**3,589.9**	**3,750.8**	**3,720.4**	**95.3**
Iowa	515.8	572.9	632.9	652.8	653.4	96.1
Kansas	563.4	595.4	649.6	685.2	648.3	93.1
Minnesota	513.1	598.3	690.9	756.0	768.9	94.9
Missouri	915.6	1,022.8	1,082.8	1,098.1	1,080.0	95.2
Nebraska	298.4	336.2	375.1	388.5	397.1	98.0
North Dakota	41.8	56.5	70.6	76.8	78.2	94.6
South Dakota	67.4	78.6	88.0	93.4	94.5	97.7
South Atlantic	**2,599.2**	**2,969.9**	**3,312.7**	**3,525.1**	**3,587.9**	**90.8**
Delaware	42.5	46.6	51.9	51.7	53.9	68.4
District of Columbia	83.2	86.1	92.0	96.4	97.1	74.3
Florida	247.9	261.7	368.3	406.9	411.1	98.4
Georgia	718.9	810.7	946.0	1,003.8	1,028.2	96.7
Maryland	443.3	528.8	550.2	580.3	588.7	79.5
North Carolina	209.6	274.4	288.2	351.6	363.2	95.7
South Carolina	179.7	226.9	257.1	252.1	254.3	89.8
Virginia	339.0	378.3	402.8	429.1	439.5	87.3
West Virginia	335.1	356.4	356.2	353.2	351.9	98.4
East South Central	**1,695.1**	**1,868.0**	**1,965.4**	**1,971.5**	**2,001.9**	**97.8**
Alabama	539.2	579.9	625.3	619.2	620.3	97.8
Kentucky	490.1	538.0	562.3	551.1	567.9	97.4
Mississippi	311.0	341.8	356.1	355.5	357.7	98.9
Tennessee	354.8	408.3	421.7	445.7	456.0	97.5
West South Central	**4,278.3**	**4,496.0**	**4,997.8**	**5,152.5**	**5,107.2**	**96.2**
Arkansas	371.0	405.8	433.9	458.7	463.2	99.7
Louisiana	737.3	859.3	931.3	929.1	924.6	99.2
Oklahoma	628 3	665.7	731.8	799.6	803.7	99.0
Texas	2,541.7	2,565.2	2,900.8	2,965.1	2,915.7	94.1
Mountain	**1,646.2**	**2,040.4**	**2,406.4**	**2,570.0**	**2,661.5**	**99.3**
Arizona	390.0	492.4	509.1	517.4	546.6	99.9
Colorado	508.7	610.9	759.1	835.2	854.3	98.3
Idaho	65.9	91.4	82.2	94.8	97.3	98.7
Montana	126.9	147.1	161.8	165.9	166.9	99.7
Nevada	65.9	100.7	155.3	162.8	175.9	99.1
New Mexico	203.4	239.4	291.6	313.0	320.4	100.0
Utah	217.6	272.6	338.3	367.7	386.5	100.0
Wyoming	67.8	85.9	109.0	113.2	113.6	99.7
Pacific	**5,940.5**	**6,319.6**	**7,200.8**	**7,405.1**	**7,351.9**	**92.2**
Alaska	14.4	24.0	36.2	50.9	57.2	100.0
California	5,506.9	5,794.5	6,618.4	6,789.8	6,715.0	92.1
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	166.3	206.7	224.9	237.5	243.0	94.0
Washington	252.9	294.4	321.3	326.9	336.7	97.9

* Percentages refer to proportion of residential gas customers using gas for heating.

Source: A.G.A. *Gas Househeating Survey.* Data represent average number of customers developed from number of year-end customers as shown in survey.

TABLE 8-6
GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS AND HEATING SATURATIONS[a] BY CENSUS DIVISION, 1960–1984 YEARLY AVERAGES[b]

(Thousands)

	1960		1965		1970		1975	
Census Division	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**20,739**	**68.2**	**26,297**	**76.1**	**31,209**	**81.9**	**34,372**	**84.1**
New England	386	25.3	583	36.8	779	48.6	857	54.8
Middle Atlantic	2,475	35.1	3,212	43.2	3,827	50.3	4,128	54.1
East North Central	4,369	64.3	6,091	77.6	7,528	85.6	8,432	89.4
West North Central	1,999	82.6	2,485	88.6	2,916	92.2	3,261	94.5
South Atlantic	1,533	66.7	2,073	74.9	2,599	80.9	2,970	84.2
East South Central	1,161	87.4	1,422	92.4	1,695	96.4	1,868	96.5
West South Central	3,457	99.7	3,900	99.5	4,278	99.0	4,496	97.1
Mountain	1,081	95.5	1,366	96.4	1,646	97.3	2,040	98.0
Pacific	4,278	97.3	5,165	97.3	5,941	98.3	6,320	94.6

	1980		1982		1983		1984	
Census Division	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**38,163**	**87.8**	**39,285**	**88.2**	**39,799**	**88.7**	**40,037**	**88.3**
New England	1,009	63.1	1,090	66.8	1,080	65.8	1,113	67.1
Middle Atlantic	4,515	60.0	4,750	62.5	4,842	63.3	4,910	63.9
East North Central	9,166	92.1	9,471	93.8	9,503	93.9	9,584	94.2
West North Central	3,590	96.3	3,733	97.3	3,751	96.9	3,720	95.3
South Atlantic	3,313	89.4	3,491	90.9	3,525	90.5	3,588	90.8
East South Central	1,965	98.5	1,982	98.3	1,972	97.0	2,002	97.8
West South Central	4,998	99.5	4,992	95.9	5,153	98.0	5,107	96.2
Mountain	2,406	98.2	2,546	98.8	2,570	98.5	2,661	99.3
Pacific	7,201	95.8	7,230	93.4	7,405	94.6	7,352	92.2

a. Percentages refer to proportion of total residential customers, within specified areas, using gas for heating.
b. Excludes data for Alaska prior to 1961.
Source: *A.G.A. Gas Househeating Survey.* Data represent average number of customers developed from number of year-end customers as shown in survey.

SECTION 9
PRICES

	1984	% Change 84/83
Gas Utility Industry		
($/MMBtu)		
Total	$ 5.13	+0.1
Residential	5.94	+1.0
Commercial	5.51	+0.1
Industrial	4.36	−1.2
Other	4.87	−1.1
Wellhead ($/Mcf)*	2.63	+0.4
City Gate	3.89	−3.7
Electric	20.98	+4.8
Number 2 Fuel Oil	8.08	+2.0

*Percentage change based on unrounded data for both years. Percentage change for wellhead price based on preliminary data for both years.

Prices in this section, unless cited as a source other than A.G.A., were developed using the following methodology. Total revenues for a specific segment and time period are divided by the corresponding total sales for that specific segment and time period. For example, the residential price (average 1984) for the state of New York was obtained by dividing total 1984 residential revenues in New York by the total 1984 residential sales in New York. Likewise, the residential price (average 1984) for the total United States was obtained by dividing total 1984 residential revenues in the United States by the total 1984 residential sales in the United States.

TABLE 9-1
AVERAGE WELLHEAD PRICES OF NATURAL GAS, BY STATE, 1960-1983[a]

(¢/MCF)

Division and State	1960	1965	1970	1975	1980	1982	1983
United States	**14.0¢**	**15.6¢**	**17.1¢**	**44.5¢**	**158.8¢**	**245.7¢**	**259.3¢**
New England	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Middle Atlantic	**31.8**	**26.9**	**28.0**	**68.0**	**210.2**	**291.0**	**311.1**
New Jersey	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New York	30.9	30.8	30.3	74.0	194.9	374.8	385.1
Pennsylvania	31.8	26.7	27.9	67.5	212.7	280.0	300.0
East North Central	**21.0**	**23.1**	**26.4**	**66.6**	**217.6**	**296.3**	**339.9**
Illinois	12.5	11.7	15.7	70.0	190.0	261.9	284.1
Indiana	18.8	23.6	23.7	39.0	135.0	154.5	208.9
Michigan	21.4	25.1	26.7	63.4	235.5	319.0	358.0
Ohio	23.5	23.6	27.1	70.6	197.7	271.4	323.8
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West North Central	**11.8**	**13.4**	**14.1**	**17.5**	**79.5**	**161.1**	**167.6**
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	11.7	13.3	14.0	17.2	77.2	150.6	156.8
Minnesota	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	25.0	24.5	24.5	34.0	0.0	0.0	0.0
Nebraska	17.5	14.6	17.1	54.1	82.9	199.0	293.1
North Dakota	11.4	16.0	16.4	23.0	118.8	230.0	227.0
South Dakota	0.0	0.0	0.0	0.0	b	308.1	336.8
South Atlantic	**26.2**	**23.4**	**25.5**	**50.4**	**274.2**	**310.1**	**300.1**
Delaware	0.0	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Florida	16.2	12.9	0.0	97.3	173.0	246.1	233.2
Georgia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	26.6	25.2	24.9	27.0	45.6	77.8	54.8
North Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	27.1	29.9	30.8	51.5	285.0	368.6	330.0
West Virginia	26.2	23.5	25.4	36.9	300.0	320.0	310.0
East South Central	**20.5**	**19.3**	**20.7**	**59.3**	**223.2**	**346.2**	**355.7**
Alabama	7.3	12.7	13.9	87.0	318.6	344.4	428.3
Kentucky	24.4	23.6	24.6	54.0	89.3[c]	151.8	151.0
Mississippi	18.8	17.3	18.4	49.6	231.7	391.0	378.0
Tennessee	17.5	19.0	19.9	43.0	176.0	300.0	250.0
West South Central	**13.1**	**14.6**	**16.7**	**45.6**	**156.9**	**238.8**	**254.8**
Arkansas	11.9	15.6	16.3	34.7	69.6	212.7	229.3
Louisiana	17.1	18.2	19.3	42.3	160.7[c]	259.8	266.7
Oklahoma	11.9	13.8	15.6	32.0	150.7	274.0	283.0
Texas	11.3	12.9	14.4	51.9	156.5[d]	216.9[d]	236.5[d]
Mountain	**11.2**	**12.1**	**14.3**	**38.2**	**172.6**	**271.2**	**290.9**
Arizona	0.0	12.1	17.1	28.0	b	259.0	307.6
Colorado	11.9	12.9	14.7	48.0	147.0	316.5	337.6
Idaho	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Montana	7.1	8.2	10.3	43.3	145.4	214.5	241.0
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	10.7	11.8	14.3	40.5	175.8	246.6	268.4
Utah	18.0	12.5	15.1	48.0	111.7	306.4	340.4
Wyoming	12.0	13.5	14.7	33.7	192.0	322.3	318.0
Pacific	**26.7**	**30.8**	**31.0**	**56.7**	**210.7**	**176.0**	**243.3**
Alaska	12.2	24.8	24.6	30.2	73.2	63.0	73.0
California	26.7	30.9	32.1	70.0	217.0	308.6	356.7
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	0.0	0.0	0.0	240.0	333.3	333.3
Washington	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a. Reflects price at first point of transfer, representing sales made by producers. The 1984 U.S. average wellhead price of natural gas is estimated to be 263.0¢.
b. Not available.
c. Value data is for the period beginning June 1, 1980 and ending May 31, 1981.
d. Weighted average value obtained from separate onshore and OCS average value calculations.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1983.

TABLE 9-2
GAS UTILITY INDUSTRY AVERAGE PRICES BY CLASS OF SERVICE, 1960-1984*

($/MMBtu)

Year	Total	Residential	Commercial	Industrial	Other
1960	$0.60	$1.00	$0.79	$0.33	$0.33
1961	0.62	1.02	0.80	0.35	0.34
1962	0.63	1.02	0.80	0.35	0.34
1963	0.62	1.02	0.80	0.35	0.35
1964	0.62	1.01	0.78	0.35	0.35
1965	0.62	1.01	0.78	0.35	0.36
1966	0.61	1.00	0.78	0.35	0.36
1967	0.61	1.00	0.78	0.35	0.36
1968	0.61	1.00	0.77	0.35	0.36
1969	0.62	1.01	0.78	0.36	0.39
1970	0.64	1.06	0.81	0.38	0.41
1971	0.68	1.12	0.85	0.41	0.38
1972	0.73	1.19	0.91	0.45	0.41
1973	0.79	1.25	0.95	0.50	0.44
1974	0.95	1.42	1.11	0.66	0.60
1975	1.29	1.69	1.38	0.99	0.94
1976	1.60	1.98	1.68	1.31	1.36
1977	1.97	2.33	2.07	1.69	1.74
1978	2.18	2.53	2.28	1.90	1.79
1979	2.52	2.92	2.66	2.23	1.94
1980	3.13	3.61	3.34	2.79	2.67
1981	3.65	4.16	3.91	3.29	3.46
1982	4.46	4.97	4.72	4.00	4.30
1983	5.12	5.88	5.51	4.41	4.92
1984	5.13	5.94	5.51	4.36	4.87

* Excludes data for Alaska prior to 1961.

TABLE 9-3
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE, 1960-1984[a]

($/MMBtu)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**$0.60**	**$0.62**	**$0.64**	**$1.29**	**$ 3.13**	**$ 5.12**	**$ 5.13**
New England	**1.77**	**1.60**	**1.60**	**2.87**	**4.96**	**7.18**	**6.66**
Connecticut	1.66	1.51	1.60	2.93	4.99	7.78	7.16
Maine	2.78	2.96	2.23	3.04	5.15	8.72	8.26
Massachusetts	1.82	1.63	1.64	2.91	4.96	6.83	6.52
New Hampshire	1.71	1.71	1.54	2.21	4.25	7.21	6.80
Rhode Island	1.58	1.46	1.36	2.82	5.00	7.33	6.31
Vermont	3.49	2.93	2.22	2.06	5.66	6.00	5.74
Middle Atlantic	**1.07**	**1.04**	**1.06**	**1.97**	**3.98**	**6.36**	**6.27**
New Jersey	1.53	1.38	1.26	2.31	4.36	6.43	6.33
New York	1.29	1.20	1.21	2.14	4.43	6.92	6.55
Pennsylvania	0.81	0.81	0.87	1.68	3.45	5.76	5.92
East North Central	**0.74**	**0.73**	**0.74**	**1.34**	**3.17**	**5.18**	**5.16**
Illinois	0.77	0.74	0.73	1.35	3.26	4.92	4.86
Indiana	0.66	0.63	0.71	1.16	2.82	4.85	4.84
Michigan	0.81	0.80	0.78	1.43	3.06	5.20	5.31
Ohio	0.68	0.70	0.73	1.35	3.24	5.56	5.53
Wisconsin	1.02	0.82	0.80	1.31	3.42	5.46	5.36
West North Central	**0.52**	**0.53**	**0.56**	**1.00**	**2.68**	**4.90**	**4.84**
Iowa	0.61	0.62	0.62	1.04	2.81	4.76	4.71
Kansas	0.33	0.36	0.39	0.69	2.24	4.21	4.14
Minnesota	0.71	0.68	0.67	1.19	2.81	5.30	5.27
Missouri	0.56	0.56	0.54	1.18	3.04	5.56	5.34
Nebraska	0.52	0.51	0.51	0.90	2.34	4.36	4.33
North Dakota	0.67	0.68	0.82	1.26	3.57	5.30	6.06
South Dakota	0.58	0.65	0.71	1.05	2.81	5.09	5.45
South Atlantic	**0.73**	**0.72**	**0.72**	**1.39**	**3.28**	**5.32**	**5.39**
Delaware	1.14	0.96	0.93	1.73	3.46	5.69	5.78
District of Columbia	1.45	1.36	1.28	2.21	4.38	7.60	7.61
Florida	0.52	0.51	0.55	1.15	2.63	3.90	4.00
Georgia	0.55	0.61	0.57	1.12	3.17	5.03	5.23
Maryland	1.32	1.17	1.13	1.97	3.87	6.76	6.81
North Carolina	0.74	0.74	0.70	1.58	3.46	5.50	5.58
South Carolina	0.57	0.58	0.62	1.10	3.16	5.14	5.24
Virginia	1.05	0.98	0.95	1.78	3.58	6.03	6.02
West Virginia	0.60	0.59	0.64	1.24	3.27	5.58	5.48
East South Central	**0.52**	**0.50**	**0.51**	**1.03**	**2.85**	**4.77**	**4.51**
Alabama	0.52	0.51	0.52	1.04	3.11	4.92	4.85
Kentucky	0.63	0.64	0.67	1.11	2.90	4.98	4.82
Mississippi	0.41	0.39	0.38	0.95	2.71	4.58	4.00
Tennessee	0.54	0.50	0.53	1.00	2.69	4.58	4.35
West South Central	**0.29**	**0.32**	**0.35**	**0.99**	**2.53**	**4.15**	**4.14**
Arkansas	0.33	0.36	0.37	0.80	1.97	3.87	3.96
Louisiana	0.26	0.28	0.30	0.85	2.36	4.32	4.18
Oklahoma	0.35	0.40	0.46	0.79	2.05	3.60	3.70
Texas	0.28	0.31	0.35	1.10	2.72	4.24	4.23
Mountain	**0.43**	**0.46**	**0.49**	**0.99**	**2.84**	**4.76**	**4.85**
Arizona	0.47	0.52	0.57	1.19	2.82	4.87	5.19
Colorado	0.43	0.45	0.48	0.90	2.95	5.13	4.89
Idaho	0.53	0.57	0.67	1.48	4.03	5.59	5.26
Montana	0.43	0.47	0.54	1.03	3.03	4.84	4.85
Nevada	0.62	0.59	0.58	1.30	3.17	5.53	5.55
New Mexico	0.34	0.41	0.42	0.88	2.66	4.40	4.68
Utah	0.44	0.43	0.46	0.85	2.34	3.86	4.41
Wyoming	0.36	0.38	0.34	0.70	2.45	4.32	4.42
Pacific	**0.59**	**0.57**	**0.58**	**1.31**	**3.65**	**5.39**	**5.51**
Alaska	b	0.88	0.70	0.81	1.20	1.80	2.04
California	0.59	0.55	0.56	1.26	3.57	5.42	5.55
Hawaii	3.13	3.03	2.76	6.78	13.01	14.98	14.48
Oregon	0.78	0.71	0.74	1.80	4.64	5.93	5.83
Washington	0.59	0.60	0.65	1.55	4.33	5.69	5.54

a. Excludes sales for resale and revenues from sales for resale.
b. Not available.
R – Revised.

TABLE 9-4
GAS UTILITY INDUSTRY RESALE PRICES BY STATE, 1970-1984[a]

($/MMBtu)

Division and State	1970	1975	1980	1981	1982	1983[R]	1984
United States	**$0.35**	**$0.80**	**$2.41**	**$2.89**	**$3.60**	**$4.04**	**$3.89**
New England	**0.62**	**1.41**	**2.84**	**3.41**	**4.33**	**4.35**	**3.87**
Connecticut	0.63	1.51	2.91	3.49	4.37	4.39	3.87
Maine	b	b	b	b	b	b	b
Massachusetts	0.61	1.35	2.81	3.40	4.31	4.34	3.87
New Hampshire	0.62	0.99	2.59	3.26	4.18	4.76	3.99
Rhode Island	0.59	1.59	2.94	3.37	4.41	4.24	3.84
Vermont	b	0.67	b	b	b	b	b
Middle Atlantic	**0.43**	**0.93**	**2.49**	**2.96**	**3.71**	**4.05**	**3.88**
New Jersey	0.44	0.99	2.45	2.95	3.66	3.66	3.67
New York	0.46	0.93	2.59	3.19	3.77	4.13	4.00
Pennsylvania	0.41	0.90	2.45	2.82	3.70	4.24	3.91
East North Central	**0.37**	**0.79**	**2.41**	**2.87**	**3.42**	**4.07**	**3.92**
Illinois	0.31	0.68	2.12	2.57	3.00	3.53	3.47
Indiana	0.37	0.72	2.14	2.63	3.24	4.23	4.03
Michigan	0.40	0.87	2.93	3.36	3.93	4.42	4.17
Ohio	0.39	0.84	2.39	2.79	3.61	4.44	4.28
Wisconsin	0.41	0.95	3.07	3.69	4.14	4.46	4.25
West North Central	**0.34**	**0.70**	**2.11**	**2.72**	**3.51**	**4.11**	**3.87**
Iowa	0.39	0.78	2.48	2.80	3.38	3.94	3.95
Kansas	0.26	0.53	1.78	2.42	3.29	3.77	3.37
Minnesota	0.37	0.75	2.32	2.96	3.73	4.37	4.23
Missouri	0.32	0.69	1.86	2.63	3.54	4.12	3.73
Nebraska	0.34	0.69	2.02	2.70	3.38	4.28	4.01
North Dakota	0.42	1.40	4.55	5.05	4.66	4.38	4.33
South Dakota	0.37	0.72	2.11	2.83	3.68	4.35	4.32
South Atlantic	**0.39**	**0.80**	**2.44**	**3.02**	**3.73**	**4.30**	**4.18**
Delaware	0.62	0.98	2.41	3.04	3.77	4.43	4.27
District of Columbia	b	b	b	b	b	b	b
Florida	0.38	0.66	2.31	2.60	3.31	3.38	3.30
Georgia	0.37	0.69	2.30	2.97	3.66	4.00	4.07
Maryland	0.45	1.05	2.61	3.00	4.04	4.85	4.75
North Carolina	0.24	0.81	2.66	3.46	3.68	4.16	4.21
South Carolina	0.45	0.68	2.32	3.11	3.68	4.04	4.07
Virginia	0.42	0.98	2.60	3.19	3.77	4.63	4.46
West Virginia	0.36	0.76	2.35	2.85	3.75	4.63	4.26
East South Central	**0.32**	**0.64**	**2.15**	**2.71**	**3.50**	**3.93**	**3.60**
Alabama	0.33	0.64	2.25	2.90	3.61	3.89	3.88
Kentucky	0.37	0.71	2.23	2.70	3.47	4.19	3.86
Mississippi	0.27	0.62	2.19	2.78	3.64	4.08	3.68
Tennessee	0.29	0.61	2.04	2.60	3.38	3.75	3.33
West South Central	**0.21**	**0.63**	**2.15**	**2.74**	**3.46**	**3.70**	**3.67**
Arkansas	0.30	0.58	2.17	2.17	2.89	3.31	3.02
Louisiana	0.22	0.62	2.09	2.63	3.45	3.78	3.71
Oklahoma	0.20	0.62	2.05	2.72	3.28	3.57	3.41
Texas	0.20	0.64	2.21	2.83	3.51	3.68	3.71
Mountain	**0.32**	**0.71**	**2.37**	**2.63**	**3.53**	**3.88**	**3.86**
Arizona	0.33	0.70	2.26	2.42	3.43	3.84	3.83
Colorado	0.26	0.58	2.51	3.28	3.82	4.14	3.85
Idaho	0.34	1.14	3.43	3.65	4.21	4.01	3.93
Montana	0.46	0.95	3.42	4.27	4.42	4.47	4.42
Nevada	0.51	1.28	3.64	4.01	4.65	5.38	5.21
New Mexico	0.20	0.48	1.91	2.31	2.71	3.07	3.77
Utah	0.20	0.42	1.83	3.38	4.44	4.71	4.56
Wyoming	0.23	0.97	3.03	3.55	4.01	3.97	4.28
Pacific	**0.34**	**1.10**	**3.39**	**3.73**	**4.39**	**4.33**	**4.14**
Alaska	b	b	0.83	b	b	b	b
California	0.37	0.85	2.75	3.05	3.85	4.24	4.10
Hawaii	b	b	b	b	b	b	b
Oregon	0.30	1.27	4.29	4.69	5.06	4.56	4.32
Washington	0.32	1.11	3.40	3.67	4.24	4.01	3.90

a. Resale prices approximate city-gate prices.
b. No sales reported.
R–Revised.

TABLE 9-5
AVERAGE GAS PRICES OF WELLHEAD, CITY GATE, AND END-USER LEVEL
1960-1984

Year	Wellhead ($/Mcf[b])	City Gate[a] ($/MMBtu[b])	Cost to the Ultimate Customer ($/MMBtu[b])
1960	$0.140	$0.342	$0.605
1961	0.151	0.357	0.618
1962	0.155	0.360	0.630
1963	0.158	0.351	0.625
1964	0.154	0.342	0.615
1965	0.156	0.339	0.618
1966	0.157	0.333	0.612
1967	0.160	0.330	0.612
1968	0.164	0.328	0.607
1969	0.167	0.334	0.616
1970	0.171	0.354	0.641
1971	0.182	0.389	0.681
1972	0.186	0.429	0.730
1973	0.216	0.463	0.788
1974	0.304	0.573	0.953
1975	0.445	0.798	1.285
1976	0.580	0.984	1.599
1977	0.790	1.308	1.974
1978	0.905	1.466	2.184
1979	1.178	1.812	2.522
1980	1.588	2.414	3.134
1981	1.982	2.885	3.650
1982	2.457	3.598	4.456
1983[R]	2.593	4.041	5.121
1984	2.630	3.890	5.128

a. Resale prices approximate city-gate prices. See Table 9-4.
b. Mcf and MMBtu prices are roughly comparable. On a MMBtu basis, the wellhead price would be slightly less.
R–Revised.
Source: For wellhead price, *Monthly Energy Review.*

TABLE 9-6
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE AND CLASS OF SERVICE, 1984

($/MMBtu)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**$5.13**	**$5.94**	**$5.51**	**$4.41**	**$4.22**	**$4.87**
New England	**6.66**	**7.80**	**6.87**	**5.49**	**4.01**	**5.49**
Connecticut	7.16	8.66	6.54	5.52	a	7.32
Maine	8.26	9.40	8.43	7.21	4.02	a
Massachusetts	6.52	7.64	7.01	5.47	a	5.47
New Hampshire	6.80	7.21	6.90	5.46	a	6.59
Rhode Island	6.31	7.17	6.83	5.46	3.86	b
Vermont	5.74	6.55	6.14	5.16	a	4.67
Middle Atlantic	**6.27**	**7.03**	**6.28**	**5.22**	**4.23**	**5.86**
New Jersey	6.33	7.07	6.34	5.38	4.35	6.53
New York	6.55	7.49	6.38	5.33	4.18	6.04
Pennsylvania	5.92	6.43	6.14	5.08	5.04	5.47
East North Central	**5.16**	**5.60**	**5.13**	**4.53**	**4.73**	**5.23**
Illinois	4.86	5.17	4.68	4.48	4.90	5.13
Indiana	4.84	5.59	5.17	4.18	4.17	4.93
Michigan	5.31	5.67	5.34	4.69	4.65	4.74
Ohio	5.53	5.86	5.49	4.87	5.59	5.34
Wisconsin	5.36	6.45	5.27	4.48	4.14	5.19
West North Central	**4.84**	**5.47**	**4.96**	**4.13**	**3.36**	**3.69**
Iowa	4.71	5.46	4.99	3.94	3.86	5.09
Kansas	4.14	4.47	3.89	4.18	3.16	3.06
Minnesota	5.27	5.95	5.58	4.34	3.94	4.80
Missouri	5.34	5.77	5.27	4.36	3.81	4.16
Nebraska	4.33	4.96	4.34	3.65	3.40	3.47
North Dakota	6.06	6.38	5.85	5.17	b	b
South Dakota	5.45	5.98	5.47	4.41	b	3.41
South Atlantic	**5.39**	**6.66**	**5.88**	**4.71**	**3.43**	**4.83**
Delaware	5.78	6.44	6.15	5.51	a	3.71
District of Columbia	7.61	8.13	7.21	a	a	a
Florida	4.00	7.02	5.02	3.85	3.42	3.96
Georgia	5.23	6.26	5.46	4.40	4.31	5.94
Maryland	6.81	7.33	6.58	5.96	a	4.40
North Carolina	5.58	6.43	5.92	5.10	4.76	5.82
South Carolina	5.24	6.55	5.66	4.77	a	4.96
Virginia	6.02	6.95	6.21	4.92	a	6.75
West Virginia	5.48	5.81	5.53	4.90	4.92	5.94
East South Central	**4.51**	**5.39**	**4.99**	**4.10**	**2.88**	**4.35**
Alabama	4.85	6.14	5.24	4.17	3.69	4.81
Kentucky	4.82	5.15	5.02	4.33	a	4.58
Mississippi	4.00	5.41	5.16	4.02	2.88	4.40
Tennessee	4.35	4.89	4.77	3.94	b	3.64
West South Central	**4.14**	**5.28**	**4.84**	**3.68**	**3.88**	**4.29**
Arkansas	3.96	4.29	4.10	3.78	3.69	3.43
Louisiana	4.18	5.77	5.58	3.35	3.66	4.01
Oklahoma	3.70	4.44	4.29	3.29	2.79	3.47
Texas	4.23	5.64	5.04	3.86	3.92	4.45
Mountain	**4.85**	**5.45**	**5.06**	**4.05**	**4.02**	**4.46**
Arizona	5.19	6.83	5.46	4.27	4.04	4.45
Colorado	4.89	5.25	4.80	4.31	3.89	4.66
Idaho	5.26	6.60	5.46	4.50	a	a
Montana	4.85	4.60	5.01	5.16	5.41	4.87
Nevada	5.55	6.54	5.80	4.63	4.54	5.13
New Mexico	4.68	5.59	4.88	3.91	3.68	4.32
Utah	4.41	4.92	4.98	3.54	a	b
Wyoming	4.42	5.28	5.25	3.37	a	6.51
Pacific	**5.51**	**5.68**	**6.55**	**5.39**	**4.99**	**5.85**
Alaska	2.04	2.66	2.36	1.97	1.57	a
California	5.55	5.63	6.75	5.57	5.09	5.94
Hawaii	14.48	17.81	12.62	14.07	a	a
Oregon	5.83	6.93	6.35	5.01	b	a
Washington	5.54	6.51	5.85	4.93	a	5.34

a. No sales reported.
b. Less than 0.05 trillion Btu in sales.

TABLE 9-7
AVERAGE RESIDENTIAL GAS PRICES, BY STATE, 1960-1984

($/MMBtu)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**$1.00**	**$1.01**	**$1.06**	**$1.69**	**$ 3.61**	**$ 5.88**	**$ 5.94**
New England	**2.08**	**1.89**	**1.88**	**3.22**	**5.48**	**8.42**	**7.80**
Connecticut	2.02	1.83	1.93	3.27	5.73	9.50	8.66
Maine	3.01	3.33	2.89	4.25	6.35	9.83	9.40
Massachusetts	2.11	1.91	1.87	3.20	5.41	8.06	7.64
New Hampshire	1.99	1.85	1.77	2.46	4.55	7.77	7.21
Rhode Island	1.92	1.80	1.76	3.16	5.48	8.55	7.17
Vermont	3.40	3.44	1.78	2.80	6.43	7.20	6.55
Middle Atlantic	**1.32**	**1.31**	**1.34**	**2.26**	**4.45**	**7.08**	**7.03**
New Jersey	1.79	1.69	1.62	2.59	4.89	7.31	7.07
New York	1.42	1.35	1.38	2.43	4.86	7.64	7.49
Pennsylvania	1.08	1.10	1.17	1.90	3.76	6.25	6.43
East North Central	**0.93**	**0.95**	**0.99**	**1.56**	**3.37**	**5.56**	**5.60**
Illinois	1.11	1.02	1.02	1.58	3.46	5.19	5.17
Indiana	0.98	0.96	1.05	1.45	3.12	5.53	5.59
Michigan	0.94	0.97	1.00	1.60	3.15	5.41	5.67
Ohio	0.76	0.83	0.89	1.51	3.45	5.90	5.86
Wisconsin	1.27	1.14	1.21	1.71	3.80	6.42	6.45
West North Central	**0.83**	**0.85**	**0.92**	**1.37**	**3.08**	**5.51**	**5.47**
Iowa	0.93	0.92	0.96	1.41	3.20	5.44	5.46
Kansas	0.57	0.60	0.69	0.97	2.37	4.65	4.47
Minnesota	1.11	1.05	1.08	1.59	3.24	5.91	5.95
Missouri	0.79	0.84	0.93	1.45	3.37	6.00	5.77
Nebraska	0.85	0.83	0.86	1.26	2.71	4.95	4.96
North Dakota	0.84	0.86	1.05	1.50	3.83	5.57	6.38
South Dakota	0.93	0.95	1.04	1.40	3.11	5.54	5.98
South Atlantic	**1.22**	**1.23**	**1.23**	**2.02**	**4.15**	**6.54**	**6.66**
Delaware	1.72	1.59	1.50	2.34	4.15	6.37	6.44
District of Columbia	1.53	1.47	1.44	2.40	4.56	7.96	8.13
Florida	2.76	2.51	1.81	2.78	4.85	7.02	7.02
Georgia	0.97	1.03	0.98	1.75	4.06	5.93	6.44
Maryland	1.48	1.39	1.43	2.31	4.40	7.29	7.33
North Carolina	1.41	1.38	1.29	2.02	4.00	6.45	6.43
South Carolina	1.43	1.39	1.34	2.08	4.13	6.28	6.55
Virginia	1.55	1.45	1.42	2.29	4.24	6.93	6.95
West Virginia	0.79	0.80	0.87	1.47	3.62	5.88	5.81
East South Central	**0.90**	**0.91**	**0.92**	**1.43**	**3.37**	**5.54**	**5.39**
Alabama	1.06	1.11	1.10	1.72	4.10	6.06	6.14
Kentucky	0.78	0.80	0.84	1.30	3.08	5.27	5.15
Mississippi	0.88	0.87	0.88	1.41	3.39	5.85	5.41
Tennessee	0.94	0.90	0.89	1.33	2.94	5.12	4.89
West South Central	**0.70**	**0.77**	**0.85**	**1.35**	**3.00**	**5.19**	**5.28**
Arkansas	0.66	0.75	0.78	1.12	2.36	4.41	4.29
Louisiana	0.64	0.72	0.75	1.32	3.07	5.88	5.77
Oklahoma	0.69	0.75	0.80	1.15	2.38	4.21	4.44
Texas	0.73	0.80	0.92	1.47	3.30	5.47	5.64
Mountain	**0.72**	**0.74**	**0.83**	**1.34**	**3.23**	**5.33**	**5.45**
Arizona	0.97	1.04	1.14	1.83	3.74	6.32	6.83
Colorado	0.67	0.67	0.71	1.16	3.21	5.54	5.25
Idaho	1.26	1.22	1.34	2.25	4.94	7.05	6.60
Montana	0.60	0.63	0.84	1.18	2.88	4.38	4.60
Nevada	1.47	1.30	1.31	1.81	3.97	6.42	6.54
New Mexico	0.74	0.71	0.84	1.37	3.21	5.19	5.59
Utah	0.63	0.64	0.70	1.12	2.68	4.28	4.92
Wyoming	0.59	0.61	0.65	0.99	2.94	5.25	5.28
Pacific	**0.91**	**0.91**	**0.97**	**1.58**	**3.51**	**5.30**	**5.68**
Alaska	•	1.48	1.42	1.48	1.73	2.33	2.66
California	0.88	0.87	0.93	1.52	3.38	5.22	5.63
Hawaii	3.65	3.74	3.56	7.97	14.58	17.94	17.81
Oregon	1.56	1.52	1.44	2.41	5.36	6.98	6.93
Washington	1.41	1.32	1.29	2.12	4.91	6.64	6.51

• Not available.
R - Revised.

TABLE 9-8
AVERAGE ANNUAL RESIDENTIAL GAS BILLS, BY STATE, 1960-1984

($/Customer)

Division and State	1960	1965	1970	1975	1980	1983	1984
United States	**$104**	**$117**	**$137**	**$206**	**$401**	**$583**	**$606**
New England	**103**	**128**	**162**	**274**	**493**	**718**	**696**
Connecticut	109	125	169	285	505	781	752
Maine	88	107	110	165	274	424	416
Massachusetts	106	132	163	276	494	695	683
New Hampshire	102	137	165	234	444	718	708
Rhode Island	91	117	146	266	474	733	666
Vermont	68	80	116	261	661	719	681
Middle Atlantic	**103**	**119**	**144**	**231**	**458**	**675**	**710**
New Jersey	102	124	150	229	439	639	642
New York	90	105	126	217	441	661	694
Pennsylvania	127	142	172	257	501	725	790
East North Central	**128**	**151**	**174**	**257**	**535**	**756**	**803**
Illinois	122	143	169	266	562	737	813
Indiana	101	128	168	220	449	662	731
Michigan	138	168	189	268	545	804	829
Ohio	140	157	172	259	547	785	828
Wisconsin	117	148	175	238	497	740	736
West North Central	**126**	**135**	**154**	**209**	**405**	**643**	**653**
Iowa	138	148	161	215	408	624	645
Kansas	90	93	114	145	301	543	510
Minnesota	161	176	190	255	450	723	748
Missouri	118	127	155	215	449	678	682
Nebraska	136	134	145	195	350	590	611
North Dakota	100	142	179	245	489	662	770
South Dakota	135	150	159	203	365	621	685
South Atlantic	**113**	**118**	**136**	**194**	**386**	**551**	**586**
Delaware	110	136	164	219	388	528	580
District of Columbia	122	129	147	230	472	759	839
Florida	54	68	87	107	194	254	262
Georgia	107	106	122	181	393	529	579
Maryland	125	133	158	225	425	643	698
North Carolina	110	124	144	188	388	559	571
South Carolina	98	105	122	151	319	421	443
Virginia	129	137	157	230	423	629	653
West Virginia	129	128	140	219	473	684	700
East South Central	**106**	**101**	**116**	**153**	**345**	**497**	**510**
Alabama	103	101	118	157	356	477	501
Kentucky	120	116	132	177	401	572	598
Mississippi	86	77	92	122	291	453	429
Tennessee	111	103	113	140	299	463	475
West South Central	**68**	**71**	**89**	**130**	**253**	**421**	**423**
Arkansas	81	85	103	128	226	410	432
Louisiana	56	59	72	108	236	424	428
Oklahoma	79	87	102	138	246	422	451
Texas	67	69	89	135	265	421	413
Mountain	**99**	**104**	**117**	**175**	**336**	**494**	**531**
Arizona	73	80	89	141	221	354	360
Colorado	100	103	111	171	385	555	564
Idaho	127	143	154	249	393	500	513
Montana	106	126	148	203	363	475	538
Nevada	130	134	148	204	347	460	470
New Mexico	99	96	109	173	318	473	516
Utah	127	128	148	201	373	563	702
Wyoming	102	106	117	160	378	616	665
Pacific	**84**	**94**	**103**	**174**	**286**	**389**	**393**
Alaska	*	341	282	328	375	478	522
California	82	92	97	166	272	378	378
Hawaii	92	102	120	232	364	395	362
Oregon	123	138	163	258	428	481	542
Washington	132	152	165	259	469	534	570

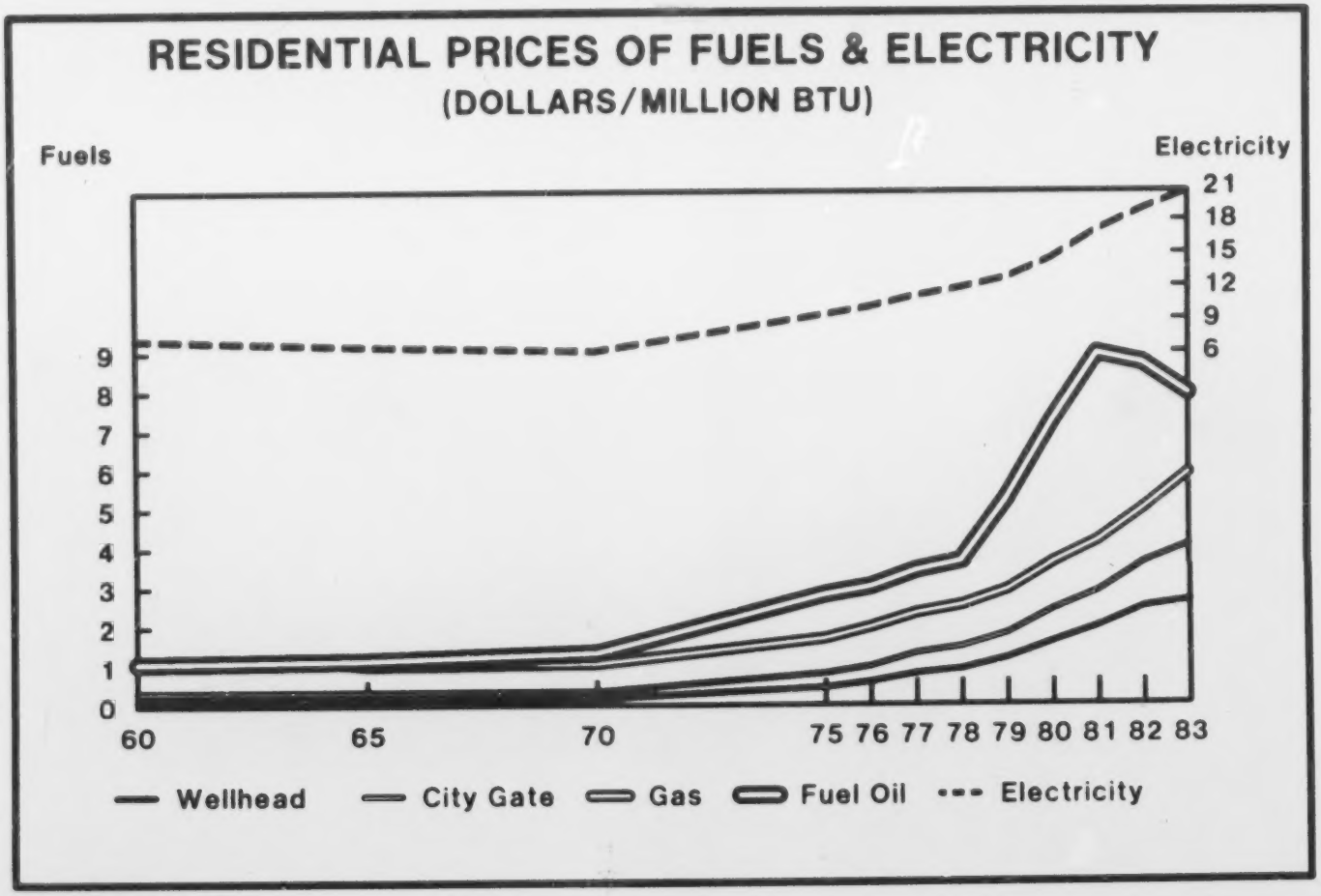
*Not available.

TABLE 9-9
AVERAGE RESIDENTIAL CONSUMPTION AND COSTS
1960-1984*

Year	Gas			Electric Price ($/MMBtu)	Number 2 Fuel Oil Price ($/MMBtu)
	Consumption (MMBtu/Customer)	Annual Bill ($/Customer)	Price ($/MMBtu)		
1960	104.8	$104.46	$1.00	$ 7.24	$1.08
1961	106.7	108.51	1.02	7.18	1.12
1962	110.9	112.98	1.02	7.06	1.13
1963	112.1	113.96	1.02	6.95	1.15
1964	115.3	116.09	1.01	6.77	1.12
1965	116.5	117.34	1.01	6.59	1.15
1966	118.8	119.38	1.00	6.45	1.18
1967	121.5	122.03	1.00	6.36	1.21
1968	124.1	124.48	1.00	6.21	1.25
1969	128.4	130.08	1.01	6.13	1.28
1970	129.2	136.69	1.06	6.15	1.33
1971	129.9	145.28	1.12	6.42	1.41
1972	130.4	154.56	1.19	6.71	1.42
1973	124.5	155.73	1.25	6	1.64
1974	119.6	169.82	1.42	8	2.60
1975	121.9	206.24	1.69	9.40	2.81
1976	121.3	240.48	1.98	10.11	3.01
1977	118.7	276.87	2.33	11.08	3.42
1978	121.0	307.40	2.53	11.81	3.66
1979	118.6	346.39	2.92	12.69	5.24
1980	111.0	400.84	3.61	14.45	7.21
1981	104.4	434.43	4.16	17.00	8.95
1982	107.1	531.96	4.97	18.90	8.70
1983[R]	99.1	583.00	5.88	20.01	7.92
1984	102.0	605.80	5.94	20.98	8.08

*Prices given are for total usage.
R–Revised.
Sources: For electric price, Edison Electric Institute *Statistical Yearbook*. For oil price, Bureau of Labor Statistics.

CHART 9-1



REFERENCE: TABLES 9-5, 9-9

TABLE 9-10
AVERAGE RESIDENTIAL GAS PRICES
BY CENSUS DIVISION
HEATING SEASON—NOVEMBER THRU MARCH

($/MMBtu)

	1978–79	1979–80	1980–81	1981–82	1982–83	1983–84	1984–85*
Total U.S.	$2.62	$3.28	$3.84	$4.52	$5.56	$5.71	$5.81
NE	4.07	4.98	5.71	7.04	8.39	7.47	7.70
MA	3.35	3.94	4.67	5.42	6.02	6.65	6.87
ENC	2.44	3.14	3.52	4.12	5.12	5.47	5.59
WNC	2.42	2.75	3.46	4.35	5.35	5.27	5.18
SA	2.98	3.92	4.27	5.17	6.12	6.46	6.46
ESC	2.41	3.09	3.57	4.28	5.38	5.22	5.34
WSC	2.35	2.91	3.23	3.97	4.87	5.00	4.99
M	2.34	2.98	3.79	4.48	5.13	5.21	5.20
P	2.20	2.98	3.59	3.91	4.98	5.46	5.68

* Data used for 1985 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-11
AVERAGE GAS CONSUMPTION BY HOUSEHEATING CUSTOMERS
BY CENSUS DIVISION
HEATING SEASON—NOVEMBER THRU MARCH

(MMBtu/Customer)

	1978–79	1979–80	1980–81	1981–82	1982–83	1983–84	1984–85*
Total U.S.	93.8	83.3	81.4	81.8	70.7	78.2	75.3
NE	95.2	93.9	92.5	88.8	75.2	85.2	80.6
MA	111.7	107.4	113.6	111.3	89.8	101.7	95.4
ENC	128.0	112.9	115.1	116.1	92.2	108.7	101.3
WNC	113.5	105.3	87.5	93.4	77.8	89.1	87.4
SA	76.2	71.0	74.1	69.9	60.6	67.5	60.7
ESC	86.4	75.1	71.5	68.7	60.3	70.1	64.2
WSC	66.5	53.7	55.5	54.4	54.9	60.9	54.5
M	84.9	76.0	59.2	59.4	62.8	64.5	63.9
P	64.3	50.7	45.6	48.3	47.4	41.8	50.3

* Data used for 1985 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-12
AVERAGE GAS BILL FOR HOUSEHEATING CUSTOMERS
BY CENSUS DIVISION
HEATING SEASON—NOVEMBER THRU MARCH

($/Customer)

	1978–79	1979–80	1980–81	1981–82	1982–83	1983–84	1984–85*
Total U.S.	$246	$273	$313	$370	$393	$447	$437
NE	387	468	528	625	631	636	621
MA	374	423	531	603	541	677	656
ENC	312	355	405	478	472	594	567
WNC	275	290	303	406	416	469	453
SA	227	278	316	361	371	436	392
ESC	208	232	255	294	325	366	342
WSC	156	156	179	216	267	304	272
M	199	226	224	266	322	336	332
P	141	151	164	189	236	228	286

* Data used for 1985 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-13
GAS UTILITY INDUSTRY AVERAGE PRICES, FOR GAS USED FOR ELECTRIC GENERATION, BY STATE, 1978-1984

($/MMBtu)

Division and State	1978	1979	1980	1981	1982	1983[R]	1984
United States	**$1.72**	**$2.12**	**$2.65**	**$3.24**	**$4.09**	**$4.20**	**$4.22**
New England	**2.41**	**2.65**	**3.50**	**3.64**	**4.20**	**3.93**	**4.01**
Connecticut	a	a	a	a	a	a	a
Maine	a	a	a	a	a	a	a
Massachusetts	1.88	2.69	3.53	3.74	4.21	3.95	4.02
New Hampshire	a	a	a	a	a	a	a
Rhode Island	2.04	2.49	3.39	3.35	4.09	3.69	3.86
Vermont	a	a	a	a	a	a	a
Middle Atlantic	**1.64**	**1.69**	**3.04**	**3.74**	**4.36**	**4.41**	**4.23**
New Jersey	1.83	2.84	3.15	3.88	4.59	4.38	4.35
New York	1.55	2.36	3.30	3.84	5.42	6.57	4.18
Pennsylvania	1.63	2.58	2.77	3.38	3.58	4.89	5.04
East North Central	**2.24**	**2.33**	**2.97**	**3.63**	**4.31**	**4.83**	**4.73**
Illinois	2.70	2.61	3.20	3.98	4.33	4.98	4.90
Indiana	1.65	2.26	2.68	3.05	3.54	4.28	4.17
Michigan	1.99	2.10	2.83	3.40	4.34	4.65	4.65
Ohio	1.31	2.24	2.83	3.32	4.23	5.05	5.59
Wisconsin	2.20	2.29	2.89	3.43	4.27	4.42	4.14
West North Central	**1.16**	**1.43**	**1.90**	**2.25**	**2.83**	**3.47**	**3.36**
Iowa	1.66	2.00	2.42	3.10	3.71	3.84	3.86
Kansas	1.16	1.45	1.83	2.12	2.64	3.33	3.16
Minnesota	1.69	1.80	2.02	2.62	3.41	3.86	3.94
Missouri	1.12	1.43	2.35	2.77	3.99	4.42	3.81
Nebraska	1.13	1.17	1.84	2.37	3.13	3.30	3.40
North Dakota	a	a	b	b	b	b	b
South Dakota	1.30	1.45	a	a	a	a	b
South Atlantic	**1.27**	**2.16**	**2.24**	**2.84**	**3.22**	**3.19**	**3.43**
Delaware	a	a	a	a	a	a	a
District of Columbia	a	a	a	a	a	a	a
Florida	1.15	2.15	2.21	2.81	3.20	3.16	3.42
Georgia	1.60	2.17	2.58	3.32	3.87	4.06	4.31
Maryland	a	a	a	4.27	4.22	a	a
North Carolina	a	2.82	3.37	4.55	4.02	4.69	4.76
South Carolina	a	2.92	3.17	4.20	4.22	4.44	a
Virginia	a	a	a	a	a	a	a
West Virginia	a	a	3.14	4.04	3.93	4.47	4.92
East South Central	**1.53**	**1.91**	**2.29**	**2.76**	**3.19**	**3.57**	**2.88**
Alabama	1.63	a	b	b	b	b	3.69
Kentucky	a	a	a	a	a	a	a
Mississippi	1.52	1.91	2.29	2.76	3.19	3.57	2.88
Tennessee	a	a	2.33	2.84	b	a	3.48
West South Central	**1.79**	**2.14**	**2.37**	**2.96**	**3.83**	**3.93**	**3.88**
Arkansas	1.20	1.74	1.73	2.14	3.18	3.52	3.69
Louisiana	1.59	2.03	2.39	3.03	3.53	3.78	3.66
Oklahoma	1.47	1.61	1.82	1.94	2.80	3.16	2.79
Texas	1.75	2.13	2.48	3.13	3.97	3.98	3.92
Mountain	**1.45**	**2.06**	**2.44**	**2.93**	**3.63**	**3.84**	**4.02**
Arizona	1.38	1.88	2.26	2.92	3.63	3.38	4.04
Colorado	1.31	2.00	2.63	3.28	3.80	4.28	3.89
Idaho	a	a	a	a	a	a	a
Montana	a	a	1.93	b	b	b	5.41
Nevada	1.62	2.36	2.62	3.08	4.16	4.84	4.54
New Mexico	1.55	1.97	2.30	2.65	3.28	3.53	3.68
Utah	1.26	1.51	a	a	a	a	a
Wyoming	a	a	a	a	a	a	a
Pacific	**2.14**	**2.40**	**3.45**	**3.91**	**4.95**	**4.98**	**4.99**
Alaska	0.88	0.85	0.88	1.19	.95	1.43	1.57
California	2.18	2.44	3.53	3.96	5.07	5.11	5.09
Hawaii	a	a	a	a	a	a	a
Oregon	a	a	4.80	5.54	b	b	b
Washington	2.20	3.05	a	4.77	7.54	b	a

a. No sales reported.
b. Less than 0.05 trillion Btu in sales.
R—Revised.

TABLE 9-14
AVERAGE CONSUMER PRICE INDEXES, 1960-1984[a]

(1967 = 100)

Year	All Items	Total Food	Apparel[b] and Upkeep	Shelter[c]	Gas and Electricity	Fuel Oil[d] and Coal	House Furnishing[e] and Operation	Trans-portation	Medical Care	Personal Care	Reading and Recreation	Other Goods and Services[f]
1960	88.6	88.0	89.6	87.8	98.6	89.2	99.3	89.6	79.1	90.1	87.3	87.8
1961	89.6	89.1	90.2	88.5	99.4	91.0	98.7	90.6	81.4	90.6	89.3	88.5
1962	90.6	89.9	90.5	89.6	99.4	91.5	98.1	92.5	83.5	92.2	91.3	89.1
1963	91.7	91.2	91.9	90.7	99.4	93.2	97.7	93.0	85.6	93.4	92.8	90.6
1964	92.2	92.4	92.7	92.2	99.4	92.7	97.6	94.3	87.3	94.6	95.0	92.0
1965	94.5	94.4	93.7	93.8	99.4	94.6	97.1	95.9	89.5	95.2	94.2	
1966	97.2	99.1	96.1	96.8	99.6	97.0	98.0	97.2	97.1	97.5	97.2	
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	103.6	105.4	104.8	100.9	103.1	103.9	103.2	106.1	104.2	104.7	104.6
1969	109.8	108.9	111.5	113.3	102.8	105.6	109.0	107.2	113.4	109.3	108.7	110.3
1970	116.3	114.9	116.1	123.6	107.3	110.1	113.4	112.7	120.6	113.2	113.4	116.2
1971	121.3	118.4	119.8	128.8	114.7	117.5	118.1	118.6	128.4	116.8	119.3	122.2
1972	125.3	123.5	122.3	134.5	120.5	118.5	121.0	119.9	132.5	119.8	122.8	126.1
1973	133.1	141.4	126.8	140.7	126.4	136.0	124.9	123.8	137.7	125.2	125.9	129.0
1974	147.7	161.7	136.2	154.4	145.8	214.6	140.5	137.7	150.5	138.3	133.8	137.2
1975	161.2	175.4	142.3	169.7	169.6	235.3	158.1	150.6	168.6	150.7	144.4	147.4
1976	170.5	180.8	147.6	179.0	189.0	250.8	168.5	165.5	184.7	160.5	151.2	153.3
1977	181.5	192.2	154.2	191.1	213.4	283.4	177.0	177.2	202.4	170.9	157.9	159.2
1978	195.3	211.2	159.5	210.3	232.6	298.3	177.0	185.8	219.4	182.0	g	183.2
1979	217.7	234.7	166.4	240.3	257.6	403.6	188.9	212.8	240.1	195.5	g	196.3
1980	247.0	255.3	177.4	283.1	301.2	557.2	202.9	250.5	267.2	212.7	g	213.6
1981	272.4	274.6	186.9	314.7	345.9	675.9	221.3	280.0	294.5	232.0	g	235.7
1982	289.1	285.7	191.8	337.0	393.8	667.9	233.2	291.5	328.7	248.3	g	257.0
1983	298.4	291.7	196.5	344.8	428.7	628.0	238.5	298.4	357.3	261.1	g	288.3
1984	311.1	302.9	200.2	361.7	445.2	641.8	242.5	311.7	379.5	271.4	g	307.7

a. Applicable to "wage-earners and clerical workers in urban United States."
b. Includes apparel only prior to June 1964.
c. Includes hotel and motel rates.
d. Starting in 1978 includes bottled gas.
e. Includes house furnishings only prior to 1969.
f. Prior to 1978 included alcoholic beverages, now found in food and beverages; now includes personal care and education—related expenses, formerly found in health and recreation.
g. Not available.

Source: Bureau of Labor Statistics. *The Consumer Price Index*, 1984.

TABLE 9-15
INDEXES OF WHOLESALE PRICES OF GAS, YEARLY AVERAGES, 1960-1984 AND MONTHLY AVERAGES, 1984

(1967 = 100)

Year and Month	All Gas	Utility Gas	Liquefied Petroleum Gas
1960	87.2	90.5	73.2
1961	88.8	94.9	58.7
1962	89.2	96.8	52.2
1963	91.8	97.5	69.6
1964	90.7	97.7	56.5
1965	92.8	97.8	69.2
1966	96.7	98.6	89.1
1967	100.0	100.0	100.0
1968	91.3	101.9	60.2
1969	93.1	103.0	63.7
1970	103.0	105.6	96.3
1971	108.0	112.2	95.7
1972	114.1	121.0	93.7
1973	126.7	131.3	113.2
1974	162.2	154.6	183.5
1975	216.7	215.3	221.0
1976	286.8	291.8	287.7
1977	387.8	412.3	367.9
1978	428.6	488.2	343.5
1979	544.4	637.6	406.9
1980	760.4	846.6	642.2
1981	939.8	1,099.1	703.6
1982	1,060.8	1,338.1	628.0
1983	1,147.9	1,426.9	714.5
1984	1,109.0	1,419.6	622.4
January	1,123.0	1,412.9	670.5
February	1,117.8	1,411.6	658.7
March	1,091.0	1,379.2	640.4
April	1,102.1	1,402.9	630.7
May	1,104.1	1,413.4	618.5
June	1,109.1	1,424.1	613.9
July	1,110.8	1,435.9	602.4
August	1,116.9	1,459.9	584.7
September	1,104.0	1,430.5	594.3
October	1,112.5	1,426.7	618.1
November	1,113.4	1,423.0	625.0
December	1,103.1	1,415.4	611.9

Source: Bureau of Labor Statistics, *Producer Prices and Price Index*, 1984. Represents unofficial estimates of U.S. Bureau of Labor Statistics, based on wellhead prices for natural gas by 20 major pipeline companies, and L.P.G. price quotations from 2 major producers.

SECTION 10
ENERGY CONSUMPTION

	1984	% Change 84/83
Annual Consumption		
(Trillions of Btu)		
Total	73,723	+ 4.5
Natural Gas Dry	18,027	+ 3.0
Crude Petroleum	31,004	+ 3.4
Bituminous & Lignite	17,161	+ 8.2
Hydropower	3,784	− 1.9
Nuclear	3,573	+10.4
Other	174	+28.9

Note: Percentage changes based on preliminary data for both years.

TABLE 10-1
ANNUAL CONSUMPTION OF ENERGY RESOURCES IN THE UNITED STATES, BY MAJOR SOURCES, BY CONSUMING SECTORS, 1977–1984[a]

(Trillions of Btu)

Consuming Sectors	Coal and Coke	Natural gas dry[b]	Petroleum[c]	Hydropower[d]	Nuclear power[d]	Other[e]	Total gross energy inputs[f]	Utility electricity purchased[g]	Total Sector energy inputs
Household and commercial:									
1977	207	7,461	4,206	—	—	—	11,874	3,955	15,829
1978	215	7,624	4,070	—	—	—	11,909	4,116	16,025
1979	188	7,891	3,448	—	—	—	11,527	4,184	15,711
1980	147	7,539	3,035	—	—	—	10,721	4,355	15,076
1981[R]	171	7,242	2,634	—	—	—	10,047	4,497	14,544
1982	189	7,433	2,449	—	—	—	10,071	4,566	14,637
1983[R]	197	7,024	2,322	—	—	—	9,543	4,681	14,224
1984[P]	213	6,913	2,444	—	—	—	9,570	4,895	14,465
Industrial:									
1977[R]	3,471[h]	8,636	9,786	33	—	—	21,926	2,682	24,608
1978[R]	3,440[h]	8,539	9,890	32	—	—	21,901	2,761	24,662
1979[R]	3,657[h]	8,549	10,576	34	—	—	22,816	2,873	25,689
1980[R]	3,121[h]	8,394	9,524	33	—	—	21,072	2,781	23,853
1981[R]	3,142[h]	8,257	8,295	33			19,727	2,817	22,544
1982[R]	2,530[h]	7,116	7,798	33	—	—	17,477	2,542	20,019
1983[R]	2,474[h]	6,822	7,583	33			16,912	2,648	19,560
1984[P]	2,849[h]	7,383	7,972	33	—	—	18,237	2,868	21,105
Transportation:[i]									
1977	—	543	19,230	—	—	—	19,773	10	19,783
1978	—	539	20,019	—	—	—	20,558	9	20,567
1979	—	612	19,817	—	—	—	20,429	10	20,439
1980	—	648	19,009	—	—	—	19,657	11	19,668
1981[R]	—	657	18,800	—	—	—	19,457	11	19,468
1982	—	613	18,417	—	—	—	19,030	11	19,041
1983[R]	—	504	18,605	—	—	—	19,109	11	19,120
1984[P]	—	524	19,302	—	—	—	19,826	11	19,837
Electricity generation, utilities:									
1977[R]	10,262	3,284	3,901	2,482	2,702	82	22,713	(6,647)	—
1978[R]	10,238	3,297	3,987	3,110	3,024	68	23,724	(6,886)	—
1979[R]	11,260	3,613	3,283	3,107	2,776	89	24,128	(7,067)	—
1980[R]	12,123	3,810	2,634	3,085	2,739	114	24,505	(7,147)	—
1981[R]	12,583	3,768	2,202	3,072	3,008	127	24,760	(7,325)	—
1982[R]	12,582	3,342	1,568	3,528	3,131	108	24,259	(7,119)	—
1983[R]	13,213	2,998	1,544	3,838	3,203	133	24,929	(7,340)	—
1984[P]	14,094	3,205	1,286	3,751	3,573	174	26,083	(7,774)	
Unaccounted for:									
1977[R]	—	7	—	—	—	—	7	—	7
1978	—	—	—	—	—	—	—	—	—
1979[R]	—	—	—	—	—	—	—	—	—
1980[R]	—	—	—	—	—	—	—	—	—
1981[R]	(4)	(2)	—	—	—	—	(2)	—	(2)
1982[R]	—	3	—	—	—	—	3	—	3
1983[R]	—	4	—	—	—	—	4	—	4
1984[P]	5	2	—	—	—	—	7	—	7
Total gross energy inputs:									
1977[R]	13,940	19,931	37,122	2,515	2,702	82	76,292	—	60,227
1978[R]	13,892	20,000	37,965	3,141	3,024	68	78,090	—	61,254
1979[R]	15,105	20,666	37,123	3,141	2,776	89	78,900	—	61,839
1980[R]	15,391	20,391	34,202	3,118	2,739	114	75,955	—	58,597
1981[R]	15,892	19,926	31,931	3,105	3,008	127	73,989	—	56,554
1982[R]	15,302	18,507	30,232	3,561	3,131	108	70,841	—	53,700
1983[R]	15,884	17,352	30,054	3,871	3,203	133	70,497	—	52,908
1984[P]	17,161	18,027	31,004	3,784	3,573	174	73,723	—	55,414

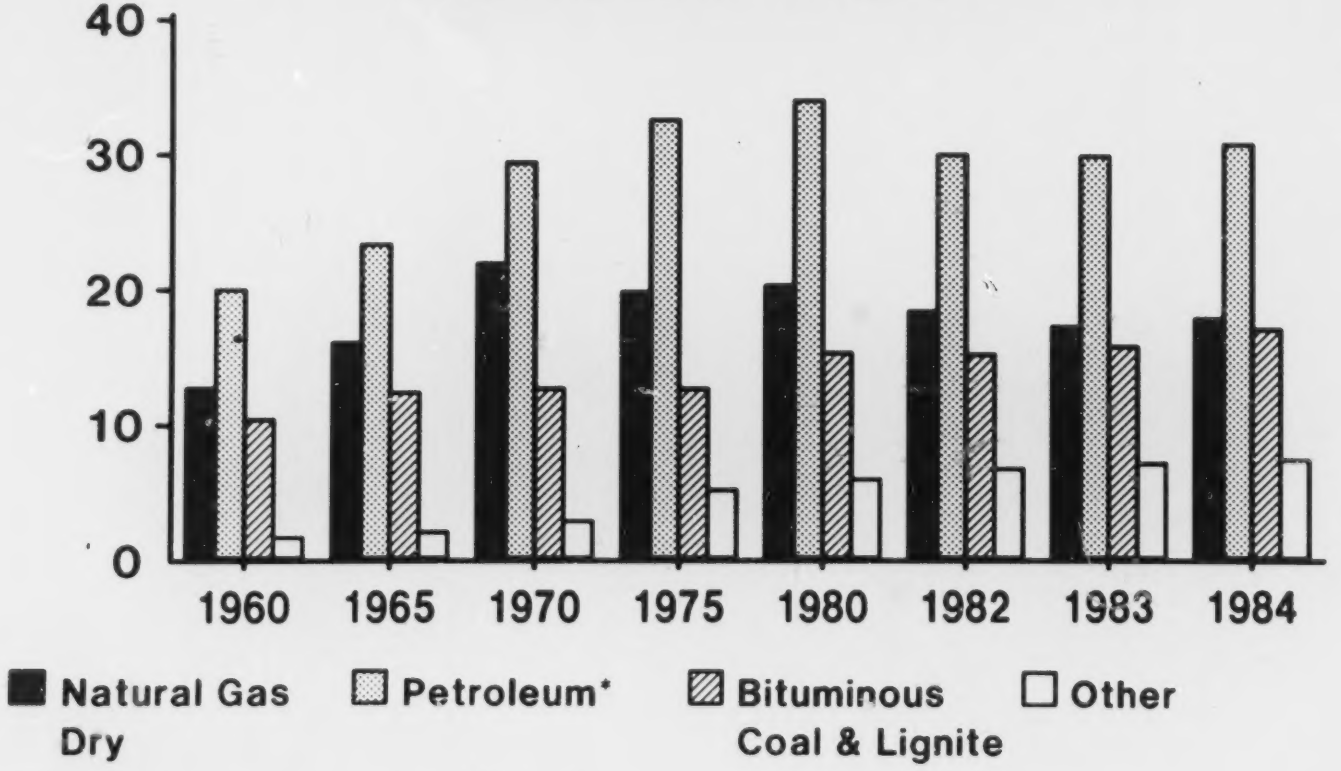
a. Gross energy is the total of inputs into the economy of the primary fuels (including imports) or their derivatives, plus the generation of hydro, nuclear power and other (converted to equivalent energy inputs).
b. Excludes natural gas liquids.
c. Petroleum products including still gas, liquefied refinery gas and natural gas liquids.
d. Outputs and hydropower (adjusted for net imports or net exports) are converted to theoretical energy inputs using 10,445 Btu per net KWH for 1984. Energy input for nuclear power converted at an average heat rate of 10,905 Btu per net KWH. Excludes inputs for power generation by non-utility plants, which are included within the other consuming sectors.
e. Includes geothermal power and electricity produced from wood and waste.
f. Gross energy resource inputs with electricity generation shown as separate consuming sector.
g. Utility electricity generated and imported, distributed to the other consuming sectors as energy resource inputs.
h. Includes net imports of coke of 15 trillion Btu in 1977, 125 trillion Btu in 1978, 63 trillion Btu in 1979, −35 trillion Btu in 1980, −16 trillion Btu in 1981, −22 trillion Btu in 1982, −16 trillion Btu in 1983 and −11 trillion Btu in 1984.
i. Includes bunkers and military transportation.

R—Revised. Note that all years have been revised. P—Preliminary.

Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review.*

CHART 10-1

UNITED STATES ENERGY CONSUMPTION
(QUADRILLIONS OF BTU)



*Includes Natural Gas Liquids

REFERENCE: TABLE 10-2

TABLE 10-2
ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960–1984[a]

(Trillions of Btu)

Year	Natural Gas Dry[b,c]	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite[d]	Anthracite Coal	Hydro-power[e]	Nuclear[e]	Other[f]	Grand Total Energy
1960	12,736	1,427	18,608	9,967	447	1,626	5	g	44,816
1961	13,228	1,498	18,989	9,809	404	1,628	17	g	45,573
1962	14,027	1,586	19,681	10,160	363	1,780	23	g	47,620
1963	14,843	1,703	20,247	10,722	361	1,740	33	g	49,649
1964	15,515	1,772	20,700	11,295	365	1,873	34	g	51,554
1965	16,097	1,853	21,566	12,030	328	2,057	38	g	53,969
1966	17,393	1,989	22,405	12,740	290	2,073	58	g	56,948
1967	18,250	2,043	23,292	11,982	274	2,344	80	g	58,265
1968	19,580	2,239	24,813	12,401	258	2,342	130	g	61,763
1969	21,020	2,459	25,962	12,509	224	2,659	146	g	64,979
1970	22,029	2,494	27,043	12,488	210	2,650	229	g	67,143
1971	22,470	2,496	28,074	11,858	187	2,862	404	g	68,351
1972	22,698	2,706	30,260	12,273	150	2,946	576	g	71,609
1973[R]	22,512	2,652	32,188	12,970	h	3,010	910	46	74,288
1974[R]	21,732	2,565	30,890	12,724	h	3,309	1,272	56	72,548
1975[R]	19,948	2,484	30,247	12,682	h	3,219	1,900	72	70,552
1976[R]	20,345	i	35,175	13,589	h	3,066	2,111	81	74,367
1977[R]	19,931	i	37,122	13,940	h	2,515	2,702	82	76,292
1978[R]	20,000	i	37,965	13,892	h	3,141	3,024	68	78,090
1979[R]	20,666	i	37,123	15,105	h	3,141	2,776	89	78,900
1980[R]	20,391	i	34,202	15,391	h	3,118	2,739	114	75,955
1981[R]	19,926	i	31,931	15,892	h	3,105	3,008	127	73,989
1982[R]	18,507	i	30,232	15,302	h	3,561	3,131	108	70,841
1983[R]	17,352	i	30,054	15,884	h	3,871	3,203	133	70,497
1984	18,027	i	31,004	17,161	h	3,784	3,573	174	73,723

a. Represents production minus exports plus imports, and adjusted for change in inventories.
b. The Btu value per cubic foot for natural gas dry for 1964 and prior years is 1,035; 1965–1968 1,032; 1969, 1971 and 1972 1,031; 1973 1,021; 1974 1,024; 1975 1,021; 1976 1,020; 1977 1,021; 1978 1,019, 1979 1,021; 1980 1,026; 1981 1,027; 1982 1,028; 1983–1984 1,031.
c. Marketed production minus shrinkage caused by liquids extraction.
d. Includes net imports of coke of −8 trillion Btu in 1973, 56 trillion Btu in 1974, 14 trillion Btu in 1975, 15 trillion Btu in 1977, 125 trillion Btu in 1978, 63 trillion Btu in 1979, −35 trillion Btu in 1980, −16 trillion Btu in 1981, −22 trillion Btu in 1982, −16 trillion Btu in 1983, and −11 trillion in 1984.
e. See Table 3-1 for procedures used to determine Btu equivalents.
f. Includes energy from geothermal, wood or waste products.
g. Not available.
h. Included in "Bituminous Coal and Lignite."
i. Included in "Crude Petroleum and Products."
R—Revised. P—Preliminary.
Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review.*

ENERGY CONSUMPTION

TABLE 10-3
ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960–1984

(Percentage)

Year	Natural Gas Dry	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other	Grand Total Energy
1960	28.4	3.2	41.6	22.2	1.0	3.6	a	b	100.0
1965	29.8	3.4	40.0	22.3	0.6	3.8	0.1	b	100.0
1970	32.8	3.7	40.3	18.6	0.3	4.0	0.3	b	100.0
1971	32.9	3.6	41.1	17.3	0.3	4.2	0.6	b	100.0
1972	31.7	3.8	42.3	17.1	0.2	4.1	0.8	b	100.0
1973	30.3	3.6	43.3	17.4	c	4.1	1.2	0.1	100.0
1974[R]	30.0	3.4	42.6	17.5	c	4.6	1.8	0.1	100.0
1975[R]	28.3	3.4	42.9	18.0	c	4.6	2.7	0.1	100.0
1976[R]	27.4	d	47.3	18.3	c	4.1	2.8	0.1	100.0
1977[R]	26.1	d	48.7	18.3	c	3.3	3.5	0.1	100.0
1978[R]	25.6	d	48.6	17.8	c	4.0	3.9	0.1	100.0
1979[R]	26.2	d	47.1	19.1	c	4.0	3.5	0.1	100.0
1980[R]	26.8	d	45.0	20.3	c	4.1	3.6	0.2	100.0
1981[R]	26.9	d	43.2	21.5	c	4.2	4.1	0.2	100.0
1982[R]	26.1	d	42.7	21.6	c	5.0	4.4	0.2	100.0
1983[R]	24.6	d	42.6	22.5	c	5.5	4.6	0.2	100.0
1984	24.5	d	42.1	23.3	c	5.1	4.8	0.2	100.0

a. Less than 0.05.
b. Not available.
c. Included in "Bituminous Coal and Lignite."
d. Included in "Crude Petroleum and Products."
Source: Same as Table 10-2.
R—Revised.

TABLE 10-4
ENERGY CONSUMPTION PER CAPITA IN THE UNITED STATES 1960–1984

Year	Total Energy Consumed (Trillions of Btu)	Natural Gas Consumed (Trillions of Btu)	Resident Population (Thousands)	Energy Consumed Per Capita (Millions of Btu)	Natural Gas Consumed Per Capita (Millions of Btu)	Gross National Product (Billions of 1972 $)	Total Energy Per Dollar of GNP (Thousands of Btu/1972 $)	Index of Industrial Production (1977=100)
1960	44,816	12,736	179,992	249	71	737.2	60.8	48.8
1965	53,969	16,097	193,815	278	83	929.3	58.1	66.1
1970	67,143	22,029	203,302	330	108	1,085.6	61.8	78.5
1971	68,351	22,470	206,827	330	109	1,122.4	60.9	79.6
1972	71,609	22,698	209,284	342	108	1,185.9	60.4	87.3
1973[R]	74,288	22,512	211,357	351	107	1,254.3	59.2	94.4
1974[R]	72,548	21,732	213,342	340	102	1,246.3	58.2	93.0
1975[R]	70,552	19,948	215,465	327	93	1,231.6	57.2	84.8
1976[R]	74,367	20,345	217,563	342	94	1,298.2	57.3	92.6
1977[R]	76,292	19,931	219,760	347	91	1,369.7	55.7	100.0
1978[R]	78,090	20,000	222,095	352	90	1,438.6	54.3	106.5
1979[R]	78,900	20,666	224,567	351	92	1,479.4	53.3	110.7
1980[R]	75,955	20,391	226,505	335	90	1,475.0	51.5	108.6
1981[R]	73,989	19,926	229,307	323	87	1,512.2	48.9	111.0
1982[R]	70,841	18,507	231,507	306	80	1,480.0	47.9	103.1
1983[R]	70,497	17,352	233,974	301	74	1,534.7	45.9	109.2
1984	73,723	18,027	236,120	312	76	1,639.3	45.0	121.8

Source: U.S. Department of Energy, U.S. Bureau of the Census and the Federal Reserve Board.
R—Revised.

TABLE 10-5
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER, BY CLASS OF SERVICE 1960-1984[a]

(MMBtu/Customer)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	281.0	104.8	374.2	33,495.0	12,577.5
1961	283.4	106.7	390.7	32,621.7	13,468.7
1962	295.1	110.9	420.7	32,713.9	13,795.1
1963	302.8	112.1	430.6	33,630.8	13,460.2
1964	317.9	115.3	469.5	37,089.1	13,234.6
1965	320.9	116.5	482.1	36,982.6	12,009.8
1966	336.4	118.8	510.0	38,259.3	12,755.1
1967	345.2	121.5	537.8	38,710.3	11,397.0
1968	362.4	124.1	567.6	40,378.0	13,129.2
1969	376.7	128.4	611.0	42,220.0	11,327.2
1970	386.8	129.2	640.9	42,386.7	12,232.3
1971	395.0	129.9	673.8	42,235.0	17,064.6
1972	397.7	130.4	697.3	41,948.8	16,428.8
1973	377.0	124.5	684.6	40,051.7	15,129.5
1974	361.1	119.6	676.1	42,066.8	12,586.1
1975	333.6	121.9	708.9	37,253.5	12,039.8
1976	329.7	121.3	718.6	40,022.3	3,511.6
1977	316.8	118.7	714.8	39,217.5	3,996.3
1978	322.2	121.0	743.6	36,635.8	4,511.8
1979	330.3	118.6	726.5	40,345.3	5,133.9
1980	326.4	111.0	701.0	42,505.2	3,645.2
1981	320.7	104.4	666.4	44,020.2	3,235.0
1982	292.9	107.1	680.6	36,514.2	3,243.0
1983[R]	263.5	99.1	625.1	32,759.3	2,996.9
1984	266.8	102.0	642.3	33,248.8	3,094.2

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages. Excludes data for Alaska prior to 1961.

b. Prior to 1976, "Other" electric generation (See Table 6-12) is included in the "Other" class of service. For 1976 and beyond, all electric generation is included in the Industrial category.

R - Revised.

TABLE 10-6
GAS UTILITY INDUSTRY AVERAGE ANNUAL RESIDENTIAL CONSUMPTION PER CUSTOMER BY STATE, 1960-1984[a]

(MMBtu/Customer)

Division and State	1960	1965	1970	1975	1980	1983[R]	1984
United States	**104.8**	**116.5**	**129.2**	**121.9**	**111.0**	**99.1**	**102.0**
New England	**49.5**	**67.7**	**86.0**	**85.3**	**90.0**	**85.3**	**89.2**
Connecticut	51.2	68.7	87.6	84.6	88.1	82.3	86.9
Maine	29.3	32.1	38.2	38.7	43.2	43.2	44.2
Massachusetts	50.2	69.2	87.0	86.0	91.3	86.3	89.4
New Hampshire	51.4	74.1	93.3	95.1	97.7	92.4	98.2
Rhode Island	47.6	65.0	82.9	84.0	86.7	85.8	93.0
Vermont	19.9	23.1	65.2	93.3	102.8	99.9	104.0
Middle Atlantic	**77.6**	**91.2**	**107.3**	**102.1**	**102.8**	**95.3**	**101.0**
New Jersey	56.9	73.5	92.2	88.5	89.7	87.3	90.9
New York	63.3	77.7	91.5	89.4	90.7	86.6	92.7
Pennsylvania	117.8	128.7	146.5	135.1	133.3	116.1	122.9
East North Central	**137.1**	**159.3**	**175.7**	**164.5**	**158.6**	**136.1**	**143.4**
Illinois	109.4	139.9	164.8	168.9	162.5	142.1	157.3
Indiana	103.5	134.1	159.9	151.5	143.9	119.7	130.8
Michigan	146.4	173.5	189.1	167.7	172.8	148.7	146.4
Ohio	183.0	188.5	193.5	171.2	158.3	133.1	141.3
Wisconsin	92.2	129.0	145.0	139.0	130.8	115.2	114.2
West North Central	**151.0**	**158.9**	**167.9**	**152.6**	**131.3**	**116.6**	**119.5**
Iowa	149.3	162.1	167.8	152.2	127.7	114.6	118.0
Kansas	157.0	156.6	165.8	150.4	126.6	116.9	114.2
Minnesota	145.9	167.3	175.6	159.7	138.9	122.2	125.6
Missouri	149.9	152.0	165.5	148.9	133.2	113.0	118.2
Nebraska	160.5	162.3	167.5	155.2	128.9	119.1	123.1
North Dakota	118.8	164.5	171.4	163.0	127.6	118.8	120.8
South Dakota	145.8	158.5	153.2	145.0	117.4	112.1	114.6
South Atlantic	**93.1**	**95.9**	**111.0**	**96.3**	**93.2**	**84.3**	**88.1**
Delaware	63.7	85.6	109.0	93.6	93.4	83.0	90.1
District of Columbia	79.8	87.8	102.7	95.9	103.5	95.4	103.2
Florida	19.6	27.1	48.2	38.6	40.0	36.1	37.4
Georgia	110.9	103.1	123.9	103.5	96.9	89.2	92.6
Maryland	84.3	95.3	110.6	97.5	96.6	88.2	95.3
North Carolina	78.2	89.8	112.1	92.7	97.1	86.7	88.8
South Carolina	68.8	75.9	91.1	72.7	77.3	67.0	67.6
Virginia	83.4	94.0	111.1	100.1	99.7	90.8	93.9
West Virginia	163.5	159.0	161.0	149.4	131.0	116.5	120.4
East South Central	**118.1**	**111.5**	**126.0**	**107.1**	**102.4**	**89.7**	**94.6**
Alabama	96.6	90.7	106.9	91.2	86.9	78.7	81.7
Kentucky	153.3	144.9	157.4	136.7	130.4	108.5	116.0
Mississippi	97.7	89.0	105.5	86.6	85.9	77.4	79.3
Tennessee	118.6	114.3	126.5	105.5	101.7	90.4	97.1
West South Central	**96.5**	**92.2**	**104.6**	**95.9**	**84.3**	**81.1**	**80.2**
Arkansas	121.7	113.8	133.0	114.0	95.6	93.1	100.7
Louisana	87.4	82.1	95.9	81.9	77.0	72.1	74.2
Oklahoma	114.9	116.3	126.8	120.6	103.5	100.2	101.8
Texas	91.2	86.3	97.6	91.5	80.2	77.0	73.2
Mountain	**138.2**	**140.2**	**140.5**	**131.0**	**103.9**	**92.7**	**97.5**
Arizona	75.3	77.0	78.4	77.3	59.1	56.0	52.7
Colorado	150.1	153.4	155.0	147.2	119.8	100.2	107.5
Idaho	100.5	118.0	114.7	110.7	79.5	70.9	77.7
Montana	175.9	185.0	175.5	171.2	126.1	108.5	117.1
Nevada	88.8	103.1	112.5	113.2	87.5	71.7	71.8
New Mexico	133.1	134.4	130.3	126.6	99.1	91.2	92.2
Utah	202.4	201.2	212.1	180.1	139.0	131.4	142.7
Wyoming	173.9	173.0	180.5	161.7	128.6	117.3	125.8
Pacific	**92.3**	**104.6**	**105.7**	**109.9**	**81.6**	**73.4**	**69.2**
Alaska	b	230.0	199.3	221.3	216.9	204.9	196.2
California	93.2	105.0	104.6	109.4	80.5	72.4	67.2
Hawaii	25.2	27.2	33.7	29.1	25.0	22.0	20.3
Oregon	78.9	90.6	113.2	107.0	79.8	69.0	78.2
Washington	105.1	115.5	128.3	122.0	95.5	80.5	87.5

a. Customer data is based on yearly averages.
b. Not available.
R – Revised.

TABLE 10-7
HEATING DEGREE DAYS[a] BY CALENDAR YEAR AND HEATING SEASONS, 1984-1985, AND THIRTY-YEAR NORMALS

Division and State	Calendar Year Degree Days			Heating Season Degree Days[b]		
	30-Year[c] Normals 1951-1980	1983	1984	30-Year[c] Normals 1951/52-1980/81	1983-1984	1984-1985
United States	**4,694**	**4,754**	**4,643**	**3,798**	**3,966**	**3,789**
New England	**6,562**	**6,270**	**6,408**	**5,071**	**5,082**	**4,887**
Connecticut	6,146	5,786	5,903	4,839	4,819	4,548
Maine	7,945	7,584	7,853	5,892	5,942	5,873
Massachusetts	6,322	6,103	6,246	4,913	4,950	4,780
New Hampshire	7,599	7,177	7,331	5,752	5,718	5,529
Rhode Island	5,968	5,556	5,596	4,629	4,512	4,300
Vermont	7,979	7,876	7,926	6,045	6,168	5,915
Middle Atlantic	**5,820**	**5,725**	**5,774**	**4,661**	**4,824**	**4,488**
New Jersey	5,424	5,321	5,337	4,422	4,549	4,243
New York	5,943	5,763	5,839	4,730	4,841	4,524
Pennsylvania	5,881	5,922	5,951	4,708	4,972	4,592
East North Central	**6,375**	**6,418**	**6,416**	**5,131**	**5,493**	**5,126**
Illinois	6,175	6,353	6,266	5,083	5,499	5,175
Indiana	5,871	5,894	5,900	4,815	5,229	4,789
Michigan	6,823	6,802	6,834	5,363	5,700	5,268
Ohio	5,897	5,888	5,988	4,766	5,122	4,768
Wisconsin	7,665	7,666	7,529	6,004	6,226	5,943
West North Central	**6,657**	**6,914**	**6,590**	**5,419**	**5,760**	**5,409**
Iowa	6,932	7,086	6,802	5,663	5,978	5,552
Kansas	4,988	5,603	5,096	4,271	4,757	4,400
Minnesota	8,771	8,716	8,512	6,855	7,047	6,748
Missouri	5,091	5,506	5,118	4,344	4,783	4,416
Nebraska	6,435	6,899	6,521	5,261	5,723	5,209
North Dakota	9,481	9,265	9,187	7,277	7,168	7,304
South Dakota	7,714	7,884	7,645	6,091	6,377	6,067
South Atlantic	**2,999**	**3,170**	**2,901**	**2,603**	**2,711**	**2,512**
Delaware	4,784	4,576	4,656	4,007	4,157	3,722
District of Columbia	d	d	d	d	d	d
Florida	720	828	675	713	729	680
Georgia	2,788	3,125	2,646	2,507	2,644	2,411
Maryland	4,811[e]	4,777[e]	4,677[e]	4,034[e]	4,207[e]	3,824[e]
North Carolina	3,481	3,725	3,354	3,043	3,138	2,949
South Carolina	2,743	3,049	2,605	2,495	2,567	2,409
Virginia	4,327	4,532	4,267	3,661	3,846	3,576
West Virginia	5,250	5,360	5,156	4,270	4,478	4,248
East South Central	**3,555**	**3,892**	**3,448**	**3,109**	**3,387**	**3,110**
Alabama	2,828	3,260	2,712	2,549	2,793	2,498
Kentucky	4,544	4,748	4,453	3,861	4,140	3,889
Mississippi	2,510	2,916	2,396	2,308	2,615	2,284
Tennessee	3,954	4,275	3,848	3,422	3,710	3,463
West South Central	**2,313**	**2,706**	**2,223**	**2,142**	**2,455**	**2,139**
Arkansas	3,327	3,822	3,252	2,991	3,435	2,987
Louisiana	1,794	2,158	1,690	1,703	1,979	1,641
Oklahoma	3,571	4,095	3,564	3,213	3,627	3,258
Texas	2,035	2,393	1,931	1,908	2,189	1,912
Mountain	**5,529**	**5,597**	**5,843**	**4,182**	**4,391**	**4,454**
Arizona	2,313	2,266	2,215	2,037	1,847	2,083
Colorado	7,123	7,595	7,668	5,192	5,767	5,365
Idaho	6,935	6,741	7,658	5,061	5,430	5,918
Montana	8,260	8,053	8,143	5,822	5,765	6,235
Nevada	4,263	4,148	4,455	3,373	3,258	3,709
New Mexico	4,756	4,807	4,828	3,842	3,826	3,844
Utah	6,555	6,412	7,389	4,966	5,527	5,573
Wyoming	8,023	8,240	8,439	5,744	6,204	6,130
Pacific	**3,322**	**3,096**	**3,180**	**2,432**	**2,205**	**2,678**
Alaska	f	f	f	f	f	f
California	2,703	2,487	2,486	2,060	1,799	2,258
Hawaii	f	f	f	f	f	f
Oregon	5,255	5,068	5,413	3,573	3,462	3,954
Washington	5,637	5,344	5,742	3,840	3,731	4,271

a. See glossary for definitions of (heating) degree days. Division heating degree days are the weighted average of all states in a region, according to the 1980 population. National heating degree days are the weighted average of all divisions, according to the 1980 population.
b. Heating season is defined as November through March period.
c. The transference of many weather stations between city locations and nearby airports at some time during the 30 year period has led to the introduction of slight inconsistencies in the average data.
d. Included in Maryland.
e. Includes the District of Columbia.
f. Not available.

Source: National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating Degree Days Weighted by Population.*

TABLE 10-8
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER BY STATE AND CLASS OF SERVICE, 1984[a]

(MMBtu/Customer)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**266.8**	**102.0**	**642.3**	**23,608.3**	**3,199,287.9**	**3,094.2**
New England	**190.6**	**89.2**	**629.2**	**7,475.3**	**4,392,577.8**	**765.6**
Connecticut	188.7	86.9	710.5	8,687.8	b	1,079.7
Maine	159.7	44.2	389.7	11,426.5	b	b
Massachusetts	191.7	89.4	640.3	6,583.2	4,467,875.0	766.4
New Hampshire	191.0	98.2	568.9	11,406.0	b	861.7
Rhode Island	180.5	93.0	422.7	6,375.0	3,790,200.0	6,683.3
Vermont	301.2	104.0	588.4	114,695.0	b	614.8
Middle Atlantic	**194.6**	**101.0**	**562.8**	**17,427.8**	**8,057,420.0**	**3,864.0**
New Jersey	179.9	90.9	470.9	12,479.2	6,647,166.7	6,012.5
New York	169.7	92.7	493.0	12,372.8	19,945,633.3	3,153.9
Pennsylvania	248.4	122.9	789.8	31,474.6	198,950.0	7,365.0
East North Central	**285.5**	**143.4**	**834.7**	**21,010.5**	**104,725.0**	**2,457.4**
Illinois	298.4	157.3	915.9	14,954.8	232,782.1	245.4
Indiana	337.6	130.8	668.3	44,329.1	7,050.0	2,896.6
Michigan	282.0	146.4	980.1	21,155.8	73,388.9	530,000.0
Ohio	251.3	141.3	780.4	26,508.5	17,722.7	2,848.2
Wisconsin	278.6	114.2	648.6	16,528.5	511,575.0	20,690.9
West North Central	**273.1**	**119.5**	**706.0**	**30,754.0**	**94,678.6**	**3,783.6**
Iowa	295.6	118.0	616.1	54,904.4	42,904.5	846.5
Kansas	336.9	114.2	647.4	25,159.1	199,362.9	12,204.2
Minnesota	278.6	125.6	705.2	22,343.3	57,516.1	2,892.7
Missouri	216.5	118.2	851.4	54,618.8	60,023.1	2,568 1
Nebraska	288.4	123.1	638.0	35,357.8	26,890.5	1,693.9
North Dakota	230.7	120.8	936.9	30,402.7	8,800.0	2,000.0
South Dakota	225.0	114.6	657.2	12,116.4	30,900.0	76,600.0
South Atlantic	**277.3**	**88.1**	**715.1**	**32,837.7**	**4,615,276.9**	**1,449.7**
Delaware	300.5	90.1	767.7	56,648.9	b	22,620.0
District of Columbia	212.9	103.2	1,180.4	b	b	b
Florida	523.5	37.4	853.6	139,617.2	6,997,058.8	4,092.0
Georgia	256.8	92.6	706.2	55,254.3	140,480.0	144.0
Maryland	172.0	95.3	641.8	6,595.1	b	1,206.9
North Carolina	322.5	88.8	551.2	35,275.7	75,266.7	1,064.4
South Carolina	331.8	67.6	556.1	56,271.1	b	949.5
Virginia	246.3	93.9	844.2	19,599.4	b	3,293.1
West Virginia	234.1	120.4	670.5	88,565.9	119,000.0	930.0
East South Central	**313.5**	**94.6**	**573.8**	**52,057.9**	**3,831,221.4**	**1,342.9**
Alabama	282.2	81.7	578.9	58,833.1	46,000.0	283.3
Kentucky	247.3	116.0	541.2	42,998.8	b	4,382.1
Mississippi	403.0	79.3	383.3	54,778.3	4,864,263.6	2,647.0
Tennessee	365.5	97.1	704.1	49,865.2	38,200.0	561.6
West South Central	**429.8**	**80.2**	**496.1**	**46,016.4**	**6,320,752.0**	**6,037.5**
Arkansas	332.1	100.7	498.0	46,951.5	1,597,500.0	3,042.0
Louisiana	301.7	74.2	397.0	63,629.9	2,148,543.5	12,935.4
Oklahoma	356.4	101.8	533.0	55,358.5	1,308,109.1	2,055.0
Texas	502.3	73.2	508.7	41,261.1	9,116,832.9	4,890.6
Mountain	**226.9**	**97.5**	**618.1**	**27,259.2**	**1,380,863.6**	**4,737.1**
Arizona	174.2	52.7	478.7	21,526.0	4,128,825.0	4,156.7
Colorado	212.5	107.5	678.3	28,086.7	378,500.0	2,935.9
Idaho	281.7	77.7	556.8	97,214.8	b	b
Montana	230.4	117.1	633.4	18,721.4	59,000.0	29,728.1
Nevada	214.2	71.8	780.2	85,742.0	1,667,933.3	75,333.3
New Mexico	239.6	92.2	481.0	7,137.9	1,710,950.0	4,146.0
Utah	279.1	142.7	664.3	81,880.1	b	12,300.0
Wyoming	342.4	125.8	724.3	108,854.2	b	1,522.7
Pacific	**210.8**	**69.2**	**504.4**	**10,120.7**	**31,706,284.2**	**8,622.9**
Alaska	580.6	196.2	548.0	6,061.6	2,397,057.1	b
California	200.4	67.2	481.9	8,646.0	53,239,972.7	8,668.5
Hawaii	95.0	20.3	294.3	1,102.0	b	b
Oregon	256.7	78.2	476.7	58,703.4	300.0	b
Washington	328.3	87.5	730.5	21,823.5	b	8,353.5

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages.
b. No sales reported.

TABLE 10-9
GAS CONSUMPTION BY RESIDENTIAL APPLIANCES, 1982
AVERAGE CONSUMPTION, EXCLUDING EXTREMES

(Therms Per Year)

	House Range	Apt. Range	Water Heater	Clothes Dryer (gas pilot)	Clothes Dryer (elec. pilot)	Gas Light	Air Conditioner Consumption Per Ton	Gas Grill	Space Heating		Pulse Combustion
									Gas Pilot	Elec. Ignition	
United States[a]	79	56	267	60	41	150	198	26	760	702	541
New England	117	112	295	69	58	200	b	50	1,063	946	768
Middle Atlantic	94	51	326	57	37	180	339	30	918	869	641
East North Central	69	45	311	72	50	180	155	19	1,249	1,185	896
West North Central	74	61	319	76	57	161	202	21	958	906	670
South Atlantic	98	64	317	85	52	216	262	25	782	736	561[c]
East South Central	76	37	353	83	53	180	400	60	567	540	403[c]
West South Central	104	56	248	77	50	206	400	40	571	543	406[c]
Mountain	66	50	294	81	50	167	163	15	825	684	556[c]
Pacific	83	67	239	48	35	125	150	30	493	440	348[c]

a. United States average consumption figures include several companies which are not included in division averages because no divisional breakout could be made.
b. Not available.
c. Statistical base for this datapoint is not as broad as for others.

SECTION 11
APPLIANCE AND HOUSING DATA

	1984	% Change 84/83
Manufacturer Shipments		
(Thousands of Units)		
Central Heating	2,029	+12.1
Ranges	1,732	+10.1
Water Heaters	3,502	+10.4
Clothes Dryers	754	+12.2
New One-Family Houses Completed		
(Thousands of Units)		
Gas Heat	460	+15.0

Note: Certain tables in this section could not be updated because current information was not available.

TABLE 11-1
MANUFACTURER SHIPMENTS OF GAS RANGES, WATER HEATERS AND CLOTHES DRYERS, 1960-1984[a]

(Thousands of Units)

Year	Domestic Range Sales			Automatic Domestic Water Heater Sales			Automatic Gas Dryers[c]
	Free-Standing[b]	Built-in	Total	Natural Gas	L.P. Gas	Total	
1960	1,475	339	1,814	2,383	338	2,721	431
1961	1,484	346	1,830	2,448	284	2,732	412
1962	1,621	360	1,981	2,588	288	2,876	475
1963	1,714	358	2,072	2,346	251	2,597	535
1964	1,826	345	2,171	2,482	242	2,724	632
1965	1,976	291	2,267	2,497	240	2,737	710
1966	1,931	232	2,163	2,341	296	2,637	751
1967	1,954	169	2,123	2,246	309	2,555	829
1968	2,102	184	2,286	2,411	345	2,756	876
1969	2,282	189	2,471	2,386	356	2,742	905
1970	2,195	167	2,362	2,404	381	2,785	852
1971	2,363	186	2,549	2,645	443	3,088	847
1972	2,467	194	2,661	2,676	487	3,163	936
1973	2,312	169	2,481	2,568	512	3,080	926
1974	1,825	125	1,950	2,210	359	2,569	739
1975	1,493	125	1,618	2,388	257	2,645	672
1976	1,693	131	1,824	2,695	417	3,112	707
1977	1,615	131	1,746	d	d	3,158[e]	736
1978	1,665	129	1,794	2,578	343	2,921	757
1979	1,542	129	1,670	2,548	339	2,887	757
1980	1,437	102	1,539	2,498	320	2,818	682
1981	1,401	95	1,496	2,462	324	2,786	639
1982	1,289	79	1,368	2,771	270	3,041	584
1983	1,477	96	1,573	2,953	219	3,172	672
1984	1,626	106	1,732	3,281	221	3,502	754

a. Shows shipments by manufacturers, expanded from returns of reporting companies to represent industry-wide coverage. Shipments of appliances for L.P. gas users include those for use by customers obtaining such gas through utility mains, as well as bottled gas users.
b. Free-standing includes free-standing, "set-in" and high-oven ranges.
c. Excludes combination washer-dryer units.
d. Not Available.
e. Estimated.

Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, Ten Year Summary, 1975-1984.

TABLE 11-2
MANUFACTURER SHIPMENTS OF GAS HEATING EQUIPMENT, 1960-1984[a]

(Thousands of Units)

Year	Central Heating Equipment				Floor and Wall Furnaces Total[b]	Direct Heating Equipment Total
	Warm Air Furnaces	Conversion Burners	Boilers	Total		
1960	900	132	153	1,185	453	1,211
1961	929	116	168	1,213	467	1,067
1962	1,009	104	175	1,288	515	1,161
1963	1,102	108	184	1,394	525	1,324
1964	1,186	101	199	1,486	555	1,190
1965	1,238	93	200	1,531	501	994
1966	1,213	93	186	1,492	515	1,034
1967	1,146	84	174	1,404	471	920
1968	1,428	79	187	1,694	555	974
1969	1,546	77	176	1,799	576	1,043
1970	1,471	66	164	1,701	545	781
1971	1,795	53	157	2,005	612	783
1972	2,066	40	156	2,262	762	708
1973	1,719	43	147	1,909	652	678
1974	1,476	89	123	1,688	409	488
1975	1,186	39	88	1,313	435	332
1976	1,554	26	113	1,693	523	306
1977	1,508	c	113	1,621	481	193
1978	1,636	c	126	1,762	532	175
1979	1,863	c	221	2,084	365	193
1980	1,446	c	293	1,739	297	222
1981	1,417	c	162	1,579	253	133
1982	1,156	c	148	1,304	260	182
1983	1,662	c	148	1,810	363	203
1984	1,849	c	180	2,029	391	256

a. Shows shipments by manufacturers; expanded from returns of reporting companies to represent industry-wide coverage.
b. Includes RV central and wall furnaces.
c. Not available.
Source: Gas Applicance Manufacturers Association, *Statistical Highlights*, Ten Year Summary, 1975-1984.

TABLE 11-3
MANUFACTURER SHIPMENTS OF RESIDENTIAL GAS APPLIANCES, BY MONTH, 1984

(Thousands of Units)

Month	Ranges		Automatic Water Heaters	Dryers[b]	Central Heating	
	Free-Standing[a]	Built-in			Warm Air Furnaces	Boilers
January	122.7	8.9	319.3	74.0	145.6	12.5
February	124.5	8.6	315.2	71.6	141.5	9.5
March	144.0	10.5	307.8	54.5	127.1	9.5
April	127.6	8.4	337.1	46.5	115.9	8.3
May	126.2	8.1	277.3	60.7	118.4	10.4
June	143.3	9.3	275.9	55.9	137.4	11.4
July	113.6	7.2	276.7	56.3	134.4	8.7
August	137.6	8.3	259.3	60.8	169.7	14.6
September	163.4	9.4	236.5	68.0	200.2	24.1
October	145.6	7.8	345.7	79.2	223.7	30.5
November	137.3	8.6	272.4	63.7	172.4	21.6
December	140.6	10.6	278.9	62.4	162.9	18.7
Total	1,626.4	105.7	3,502.1	753.6	1,849.2	179.8

a. Free-standing includes free-standing, "set-in" and high-oven ranges.
b. Excludes combination washer-dryer units.
Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, March 1985.

TABLE 11-4
NUMBER OF OCCUPIED HOUSING UNITS,[a] BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1975-1982

(Thousands of Occupied Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c] / None
1975					
United States	**72,523**	**40,933**	**9,173**	**16,299**	**6,117**
Northeast	16,508	6,446	802	8,875	386
Midwest[d]	19,393	13,666	1,154	3,027	1,546
South	23,105	11,352	4,965	3,508	3,280
West	13,518	9,469	2,253	889	907
1976					
United States	**74,005**	**41,219**	**10,151**	**16,451**	**6,184**
Northeast	16,544	6,140	846	9,161	397
Midwest[d]	19,722	13,803	1,366	3,004	1,549
South	23,742	11,449	5,498	3,488	3,307
West	13,998	9,826	2,441	798	933
1977					
United States	**75,280**	**41,543**	**11,146**	**16,060**	**6,531**
Northeast	16,637	6,151	958	9,103	425
Midwest[d]	19,855	13,893	1,506	2,843	1,613
South	24,379	11,577	6,033	3,335	3,434
West	14,407	9,922	2,649	778	1,058
1978					
United States	**77,167**	**42,522**	**12,258**	**16,071**	**6,316**
Northeast	16,952	6,301	999	9,252	400
Midwest[d]	20,171	14,140	1,685	2,817	1,529
South	25,093	11,956	6,561	3,263	3,313
West	14,951	10,125	3,013	739	1,074
1979					
United States	**78,572**	**43,323**	**13,244**	**15,708**	**6,297**
Northeast	17,122	6,558	1,109	9,056	399
Midwest[b]	20,565	14,428	1,864	2,724	1,549
South	25,584	12,054	7,074	3,191	3,265
West	15,301	10,283	3,197	737	1,084
1980					
United States	**80,072**	**44,398**	**14,208**	**14,868**	**6,598**
Northeast	17,264	6,928	1,169	8,685	482
Midwest[d]	20,842	14,688	2,036	2,503	1,615
South	26,286	12,290	7,615	3,009	3,372
West	15,680	10,492	3,388	671	1,129
1981					
United States	**83,175**	**46,084**	**15,486**	**14,494**	**7,111**
Northeast	17,851	7,335	1,281	8,642	593
Midwest[d]	21,565	15,308	2,211	2,328	1,718
South	27,431	12,725	8,225	2,905	3,576
West	16,328	10,716	3,770	619	1,223
1982					
United States	**84,638**	**46,700**	**15,684**	**13,031**	**9,223**
Northeast	18,221	7,741	1,319	8,226	934
Midwest[d]	21,618	15,656	2,172	1,774	2,015
South	27,931	12,346	8,557	2,559	4,470
West	16,868	10,956	3,635	472	1,805

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal, wood and solar heat.
d. Formerly North Central.

Source: U.S. Bureau of the Census, Current Housing Reports—Series H-150. *Annual Housing Survey*. Part A: General Housing Characteristics.

TABLE 11-5
NEW ONE FAMILY HOUSES[a] COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1976-1984

(Thousands of Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other/None
1976					
United States	**1,034**	**407**	**499**	**110**	**19**
Northeast	121	18	38	62	4
Midwest[c]	271	130	109	26	6
South	410	120	260	22	8
West	232	139	91	d	b
1977					
United States	**1,258**	**476**	**635**	**120**	**28**
Northeast	135	22	42	67	5
Midwest[c]	300	138	121	30	11
South	512	139	341	23	8
West	311	176	130	d	4
1978					
United States	**1,369**	**511**	**710**	**109**	**40**
Northeast	141	23	48	60	11
Midwest[c]	300	149	107	32	11
South	571	153	392	16	9
West	357	186	162	d	9
1979					
United States	**1,301**	**512**	**662**	**86**	**41**
Northeast	135	32	47	48	7
Midwest[c]	294	162	96	22	14
South	535	147	365	14	9
West	337	170	154	d	12
1980					
United States	**957**	**393**	**483**	**29**	**52**
Northeast	100	35	36	18	11
Midwest[c]	170	101	47	6	16
South	455	136	303	5	11
West	232	121	97	d	14
1981					
United States	**819**	**339**	**407**	**16**	**57**
Northeast	87	30	34	11	12
Midwest[c]	140	87	37	d	14
South	408	128	262	d	16
West	183	94	74	d	15
1982					
United States	**632**	**252**	**315**	**17**	**48**
Northeast	79	28	27	14	10
Midwest[c]	92	53	24	3	13
South	340	112	214	d	13
West	121	59	50	d	12
1983					
United States	**924**	**400**	**448**	**22**	**53**
Northeast	106	40	38	18	9
Midwest[c]	142	92	35	d	13
South	476	163	296	d	15
West	200	105	79	d	16
1984					
United States	**1,025**	**460**	**492**	**24**	**49**
Northeast	129	53	46	21	9
Midwest[c]	156	110	30	d	14
South	508	170	325	d	12
West	233	127	91	d	14

a. Includes only privately-owned housing units.
b. Does not include kerosene.
c. Formerly North Central.
d. Withheld because estimate did not meet Bureau of the Census publication standards.
Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New Housing*, 1984.

TABLE 11-6
UNITS[a] IN NEW MULTIFAMILY BUILDINGS COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1976-1984

(Thousands of Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other/None
1976					
United States	**343**	**113**	**202**	**24**	**3**
Northeast	50	11	21	16	2
Midwest[c]	84	39	44	1	d
South	103	19	78	6	1
West	106	45	60	d	d
1977					
United States	**399**	**115**	**261**	**18**	**4**
Northeast	41	9	20	10	2
Midwest[c]	99	39	54	6	d
South	125	16	106	3	d
West	133	51	81	d	1
1978					
United States	**498**	**131**	**339**	**24**	**5**
Northeast	41	9	13	18	d
Midwest[c]	117	44	70	2	d
South	181	16	161	3	1
West	160	61	95	d	4
1979					
United States	**570**	**150**	**386**	**27**	**6**
Northeast	53	11	21	21	d
Midwest[c]	121	50	69	2	1
South	227	22	200	4	2
West	169	68	97	d	4
1980					
United States	**545**	**165**	**362**	**12**	**6**
Northeast	46	16	20	10	d
Midwest[c]	104	46	57	d	1
South	242	36	204	2	d
West	153	67	81	d	5
1981					
United States	**447**	**142**	**293**	**7**	**4**
Northeast	40	23	11	5	d
Midwest[c]	78	42	36	d	d
South	218	33	184	1	d
West	111	44	63	d	4
1982					
United States	**374**	**103**	**255**	**9**	**7**
Northeast	41	15	17	8	1
Midwest[c]	51	32	17	d	2
South	199	21	176	d	1
West	82	34	45	d	3
1983					
United States	**467**	**133**	**327**	**3**	**4**
Northeast	33	21	9	d	e
Midwest[c]	59	37	22	d	1
South	270	31	238	d	1
West	104	44	58	d	3
1984					
United States	**627**	**165**	**452**	**5**	**5**
Northeast	40	16	18	d	1
Midwest[c]	65	34	32	d	e
South	358	46	312	d	e
West	164	70	90	d	4

a. Includes only privately-owned housing units.
b. Does not include kerosene.
c. Formerly North Central.
d. Withheld because estimate did not meet Bureau of the Census publication standards.
e. Fewer than 500 units.
Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New Housing*, 1984.

TABLE 11-7
NUMBER OF OCCUPIED HOUSING UNITS,[a] BY TYPE OF COOKING FUEL AND BY CENSUS REGION, 1974-1980

(Thousands of Occupied Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1974					
United States	**70,831**	**31,908**	**32,720**	**82**	**6,120**
Northeast	16,281	9,211	5,747	46	1,277
Midwest[d]	18,993	8,908	8,423	14	1,648
South	22,489	7,985	11,797	19	2,688
West	13,067	5,803	6,754	4	506
1975					
United States	**72,523**	**32,493**	**33,944**	**76**	**6,011**
Northeast	16,508	9,244	5,973	27	1,264
Midwest[d]	19,393	9,051	8,699	16	1,627
South	23,105	8,229	12,224	31	2,621
West	13,518	5,968	7,048	3	499
1976					
United States	**74,003**	**32,299**	**35,669**	**44**	**5,991**
Northeast	16,545	9,086	6,178	14	1,267
Midwest[d]	19,722	8,978	9,165	7	1,572
South	23,741	8,179	12,897	22	2,643
West	13,996	6,057	7,429	1	509
1977					
United States	**75,280**	**32,207**	**37,042**	**45**	**5,986**
Northeast	16,635	9,096	6,280	17	1,242
Midwest[d]	19,857	8,857	9,426	14	1,560
South	24,379	8,146	13,563	11	2,659
West	14,408	6,107	7,773	2	526
1978					
United States	**77,167**	**32,576**	**38,779**	**107**	**5,705**
Northeast	16,952	9,185	6,568	44	1,155
Midwest[d]	20,171	8,847	9,833	32	1,459
South	25,094	8,242	14,234	24	2,594
West	14,950	6,302	8,144	7	497
1979					
United States	**78,572**	**32,551**	**40,345**	**84**	**5,593**
Northeast	17,123	9,162	6,752	42	1,166
Midwest[d]	20,565	8,958	10,180	15	1,413
South	25,585	8,171	14,873	22	2,519
West	15,299	6,258	8,540	6	496
1980					
United States	**80,072**	**32,664**	**41,729**	**152**	**5,528**
Northeast	17,264	9,234	6,828	65	1,138
Midwest[d]	20,842	8,898	10,516	30	1,398
South	26,286	8,196	15,531	37	2,521
West	15,680	6,336	8,852	20	471

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal and wood.
d. Formerly North Central.

Sources: For 1974-1977, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey.* Part A. For 1978-1980, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey.* Part F: Energy—Related Housing Characteristics.

TABLE 11-8
NUMBER OF OCCUPIED HOUSEHOLDS BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1981

(Millions of Households)

Region	Total	Gas	Electricity	Oil[a]	Other[b]/None
Water Heating					
United States	**83.1**	**45.6**	**27.1**	**6.1**	**4.3**
Northeast	17.9	8.0	3.6	5.7	.6
Midwest[c]	21.3	14.5	5.2	.1	1.5
South	27.7	11.9	13.9	.3	1.6
West	16.2	11.2	4.3	d	.7
Clothes Drying					
United States	**83.1**	**12.5**	**37.5**	e	**33.2**
Northeast	18.0	3.2	6.1	e	8.7
Midwest[c]	21.1	4.3	10.2	e	6.6
South	27.8	2.2	13.9	e	11.7
West	16.3	2.8	7.3	e	6.2

NUMBER OF OCCUPIED HOUSEHOLDS BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1982

(Millions of Households)

Region	Total	Gas	Electricity	Oil[a]	Other[b]/None
Water Heating					
United States	**83.8**	**47.1**	**26.6**	**5.7**	**4.4**
Northeast	18.0	8.7	3.7	5.0	.6
Midwest[c]	21.2	14.7	5.5	.1	.9
South	27.9	12.4	13.2	.4	1.9
West	16.4	11.3	4.2	.1	.8
Clothes Drying					
United States	**83.8**	**11.3**	**37.9**	e	**34.6**
Northeast	18.0	2.5	6.9	e	8.6
Midwest[c]	21.4	4.0	9.7	e	7.7
South	28.1	2.2	14.2	e	11.7
West	16.5	2.6	7.2	e	6.7

a. Oil includes kerosene.
b. Other includes LP gas, coal, wood and solar.
c. Formerly North Central.
d. Data withheld because of a large variance.
e. Not applicable.

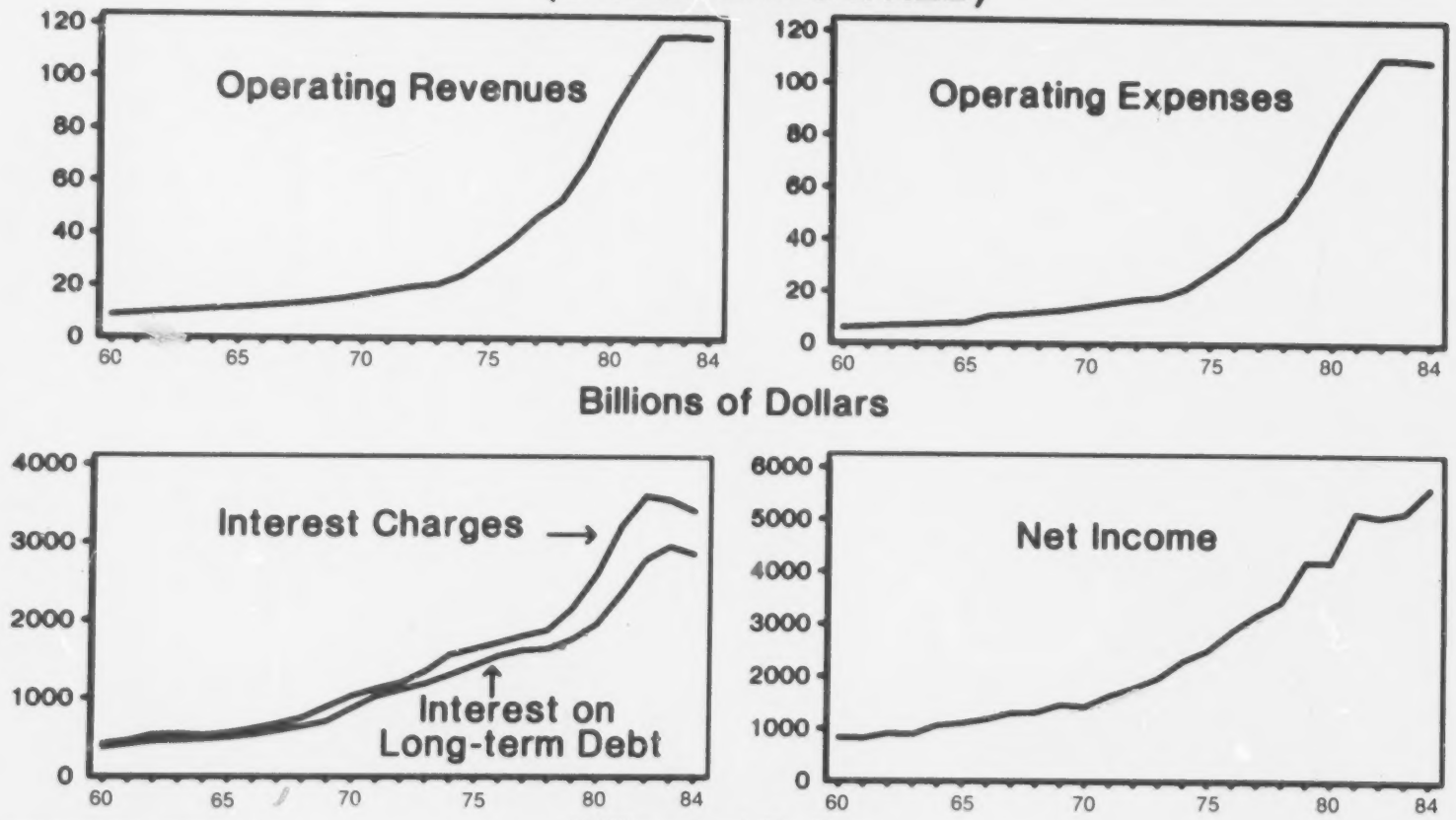
Source: U.S. Department of Energy, Energy Information Administration, *Residential Energy Consumption Survey: Housing Characteristics.*

SECTION 12
INCOME ACCOUNTS

	1984	% Change 84/83
Total Operating Revenues		
(Millions)		
Total Industry	$115,491	−0.5
Distribution	17,366	+3.7
Transmission	53,319	−0.5
Integrated	25,599	−5.6
Combination	19,207	+3.0
Net Income		
(Millions)		
Total Industry	$ 5,619	+8.9
Distribution	627	+20.3
Transmission	2,880	+4.8
Integrated	1,202	+7.0
Combination	910	+19.0

CHART 12-1

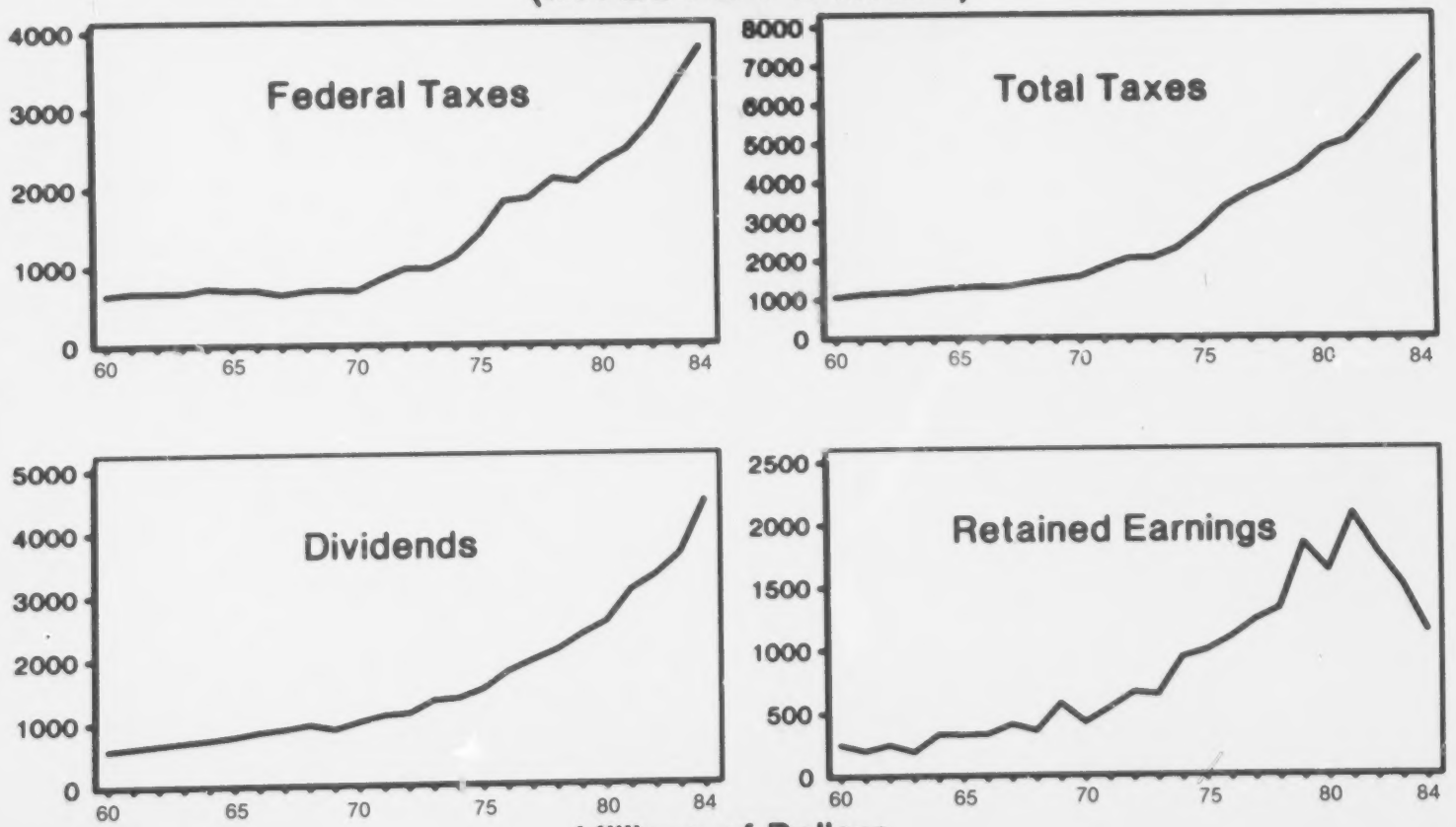
GAS UTILITY INDUSTRY COMPOSITE INCOME ACCOUNTS (INVESTOR-OWNED)



REFERENCE: TABLE 12-1

CHART 12-2

GAS UTILITY INDUSTRY DISPOSITION OF NET INCOME AND TAXES (INVESTOR-OWNED)



REFERENCE: TABLE 12-1

TABLE 12-1
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY[a] 1960–1984

(Millions)

	1960	1965	1970	1975	1980	1983	1984
Total Operating Revenues	$8,696	$11,525	$16,380	$30,550	$85,918	$116,096	$115,491
Operation Expenses	5,689	7,657	11,205	22,254	73,288	98,933	97,374
Maintenance Expenses	262	316	431	703	1,220	1,562	1,579
Total Operation and Maintenance Expenses	5,951	7,973	11,636	22,957	74,508	100,495	98,953
Depreciation, Retirements, Depletion, etc.	578	798	1,101	1,760	2,434	3,139	3,066
Federal Income Taxes[b]	540	633	605	965	1,369	2,007	2,746
Provision for Deferred Federal Income Taxes				465	1,949	2,942	2,138
Portion of Current Federal Income Taxes Provided For in Prior Years	79	45	34	(252)	(1,406)	(2,191)	(1,684)
Investment Tax Credit Adjustment	b	b	b	130	213	238	251
Other Federal Taxes	22	27	55	109	202	333	341
State Income Taxes	23	26	46	116	200	352	374
Other State and Local Taxes	394	561	829	1,230	2,320	2,827	2,980
Total Taxes	1,058	1,292	1,569	2,763	4,847	6,508	7,146
Total Operating Expenses	7,587	10,063	14,306	27,480	81,789	110,142	109,165
Operating Income	1,109	1,462	2,074	3,070	4,129	5,954	6,326
Other Operating Income	3	7	12	21	23	20	17
Allowance for Funds Used During Construction	25	34	73	130	319	329	304
Utility Operating Income	1,137	1,503	2,159	3,221	4,471	6,303	6,647
Other Income (Non-Operating) (Net)[c]	110	157	298	916[d]	2,458[d]	2,414[d]	2,421[d]
Income Before Interest Charges	1,247	1,660	2,457	4,137[d]	6,929[d]	8,717[d]	9,068[d]
Interest on Long-Term Debt	374	499	867	1,423	1,961	2,963	2,866
Amortization of Debt Disc. Exp. and Premium	2	5	9	12	15	18	21
Other Interest Expense (Net)	41	49	154	203	622	581	531
Total Interest Charges	417	553	1,030	1,638	2,598	3,562	3,418
Net Income Before Extraordinary Items	e	e	e	2,499[d]	4,331[d]	5,155[d]	5,650[d]
Extraordinary Items, Less Taxes	c	c	c	3	(137)	3	(31)
Net Income	830	1,107	1,427	2,502[d]	4,194[d]	5,158[d]	5,619[d]
Preferred Dividends	69	78	129	184	296	433	474
Common Dividends	512	703	877	1,325	2,268	3,205	3,997
Note:							
Number of Companies Reporting[f]	310	304	291	204	201	186	183
Op. Rev. of Companies Reporting (Millions)	$8,112	$10,751	$15,776	$29,057	$79,896	$105,306	$106,402

a. For combination companies, only gas operations are included.
b. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
c. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
d. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
e. Not available.
f. Financial data of report companies expanded to represent total industry on the basis of operating revenues. As of 1971 total number of sample companies limited to companies with operating revenues over $3,000,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-2
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1978–1984

(Millions)

	1978	1979	1980	1981	1982	1983	1984
Total Operating Revenues	$9,936	$11,767	$14,013	$12,726	$14,653	$16,743	$17,366
Operation Expenses	7,766	9,410	11,539	10,727	12,523	14,064	14,370
Maintenance Expenses	213	233	252	206	217	271	294
Total Operation and Maintenance Expenses	7,979	9,643	11,791	10,933	12,740	14,335	14,664
Depreciation, Retirements, Depletion, etc.	299	315	336	292	314	372	397
Federal Income Taxes	218	209	193	106	123	176	388
Provision for Deferred Federal Income Taxes	91	106	97	112	144	214	139
Portion of Current Federal Income Taxes Provided For in Prior Years	(19)	(30)	(42)	(34)	(69)	(70)	(120)
Investment Tax Credit Adjustment	34	32	53	41	36	35	40
Other Federal Taxes	39	45	50	46	52	62	70
State Income Taxes	25	26	33	32	33	44	47
Other State and Local Taxes	615	668	752	555	624	774	837
Total Taxes	1,001	1,056	1,136	858	943	1,235	1,401
Total Operating Expenses	9,279	11,014	13,263	12,083	13,997	15,942	16,462
Operating Income	657	753	750	643	656	801	904
Other Operating Income	2	2	3	2	2	2	3
Allowance for Funds Used During Construction	3	5	8	17	16	12	11
Utility Operating Income	662	760	761	662	674	815	918
Other Income (Non-Operating) (Net)	38	56	50	51	76	91	94
Income Before Interest Charges	700	816	811	713	750	906	1,012
Interest on Long-Term Debt	233	252	279	248	297	323	327
Amortization of Debt Disc. Exp. and Premium	2	2	2	2	2	3	4
Other Intererst Expense (Net)	33	48	78	104	80	60	54
Total Interest Charges	267	303	359	354	379	386	385
Net Income Before Extraordinary Items	433	513	452	359	371	520	627
Extraordinary Items, Less Taxes	a	5	1	2	2	a	a
Net Income	433	518	453	361	373	521	627
Preferred Dividends	24	27	30	22	22	31	31
Common Dividends	273	333	330	246	257	329	400
Note:							
Number of Companies Reporting	53	51	56	52	52	53	53
Op. Rev. of Companies Reporting (Millions)	$9,936	$10,747	$12,959	$11,699	$13,407	$15,395	$15,659

a. Less than $500,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-3
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960–1984

(Millions)

	1960	1965	1970	1975	1980	1983	1984
Total Operating Revenues	3,190	$4,088	$5,928	$11,898	$41,604	$53,577	$53,319
Operation Expenses	2,031	2,747	4,094	8,463	36,075	46,496	46,269
Maintenance Expenses	64	78	109	187	405	523	499
Total Operation and Maintenance Expenses	2,095	2,825	4,203	8,650	36,480	47,019	46,768
Depreciation, Retirements, Depletion, etc.	284	357	509	896	1,238	1,583	1,465
Federal Income Taxes[a]	163	212	200	646	846	1,209	1,131
Provision for Deferred Federal Income Taxes				246	1,421	1,930	1,593
Portion of Current Federal Income Taxes Provided For in Prior Years	56	13	(9)	(221)	(1,069)	(1,643)	(1,084)
Investment Tax Credit Adjustment	a	a	a	48	77	43	38
Other Federal Taxes	4	5	11	22	52	97	84
State Income Taxes	8	8	12	52	92	150	139
Other State and Local Taxes	88	117	162	221	572	396	452
Total Taxes	319	355	376	1,014	1,991	2,182	2,353
Total Operating Expenses	2,698	3,537	5,088	10,560	39,709	50,784	50,586
Operating Income	492	551	840	1,338	1,895	2,793	2,733
Other Operating Income	b	b	b	b	3	b	1
Allowance for Funds Used During Construction	11	18	24	38	126	43	40
Utility Operating Income	503	569	864	1,376	2,024	2,836	2,774
Other Income (Non-Operating) (Net)[c]	32	70	190	640[d]	1,755[d]	1,816[d]	1,827[d]
Income Before Interest Charges	535	639	1,054	2,016[d]	3,779[d]	4,652[d]	4,601[d]
Interest on Long-Term Debt	195	237	414	643	979	1,557	1,400
Amortization of Debt Disc. Exp. and Premium	2	4	7	7	8	8	9
Other Interest Expense (Net)	21	20	70	110	325	338	312
Total Interest Charges	218	261	491	760	1,312	1,903	1,721
Net Income Before Extraordinary Items	e	e	e	1,256[d]	2,467[d]	2,749[d]	2,880[d]
Extraordinary Items, Less Taxes	c	c	c	0	(141)	0	0
Net Income	317	378	563	1,256[d]	2,326[d]	2,749[d]	2,880[d]
Preferred Dividends	33	38	79	79	142	211	193
Common Dividends	184	258	351	600	1,229	1,698	2,336
Note:							
Number of Companies Reporting	48	47	39	33	39	33	34
Op. Rev. of Companies Reporting (Millions)	$3,092	$3,999	$5,729	$11,192	$37,971	$47,123	$49,469

a. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
b. Less than $500,000.
c. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
d. Not comparable with prior years due to 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earings of subsidiaries.
e. Not available.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-4
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1978-1984

(Millions)

	1978	1979	1980	1981	1982	1983	1984
Total Operating Revenues	$11,266	$14,439	$17,300	$23,612	$27,481	$27,125	$25,599
Operation Expenses	9,155	12,116	14,870	20,076	23,399	22,806	21,043
Maintenance Expenses	231	265	285	417	455	422	432
Total Operation and Maintenance Expenses	9,385	12,381	15,155	20,493	23,854	23,228	21,475
Depreciation, Retirements, Depletion, etc.	407	464	490	617	671	704	682
Federal Income Taxes	180	24	261	220	160	506	714
Provision for Deferred Federal Income Taxes	153	375	221	350	538	382	156
Portion of Current Federal Income Taxes Provided For in Prior Years	(64)	(85)	(194)	(155)	(276)	(258)	(171)
Investment Tax Credit Adjustment	49	37	47	78	125	84	78
Other Federal Taxes	40	48	53	86	103	100	105
State Income Taxes	46	56	50	60	49	95	106
Other State and Local Taxes	349	401	449	781	930	867	905
Total Taxes	752	857	887	1,420	1,629	1,776	1,893
Total Operating Expenses	10,544	13,702	16,532	22,530	26,154	25,708	24,050
Operating Income	722	737	768	1,082	1,327	1,417	1,549
Other Operating Income	9	11	17	22	21	18	13
Allowance for Funds Used During Construction	10	12	17	18	21	10	9
Utility Operating Income	741	760	802	1,122	1,369	1,445	1,571
Other Income (Non-Operating) (Net)	257	433	582	771	606	457	419
Income Before Interest Charges	998	1,193	1,384	1,893	1,975	1,902	1,990
Interest on Long-Term Debt	341	356	375	501	606	635	634
Amortization of Debt Disc. Exp. and Premium	3	3	3	3	4	4	5
Other Interest Expense (Net)	54	90	163	239	231	140	119
Total Interest Charges	398	449	541	743	841	779	758
Net Income Before Extraordinary Items	600	744	843	1,150	1,134	1,123	1,232
Extraordinary Items, Less Taxes	1	63	a	(9)	a	a	(30)
Net Income	601	807	843	1,141	1,134	1,123	1,202
Preferred Dividends	35	35	35	49	58	78	127
Common Dividends	366	392	424	618	712	774	846
Note:							
Number of Companies Reporting	43	40	45	48	46	43	42
Op. Rev. of Companies Reporting (Millions)	$10,261	$12,180	$16,020	$22,360	$25,015	$24,309	$22,394

a. Less than $500,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-5
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1978-1984

(Millions)

	1978	1979	1980	1981	1982	1983	1984
Gas Operations							
Total Operating Revenues	$ 8,804	$10,806	$13,001	$15,067	$17,692	$18,651	$19,207
Operation Expenses	6,871	8,737	10,804	12,636	14,778	15,567	15,692
Maintenance Expenses	231	262	278	319	339	346	354
Total Operation and Maintenance Expenses	7,102	8,998	11,082	12,955	15,117	15,913	16,046
Depreciation, Retirements, Depletion, etc.	321	346	370	398	443	480	522
Federal Income Taxes	167	167	69	126	145	116	513
Provision for Deferred Federal Income Taxes	110	121	210	218	254	416	250
Portion of Current Federal Income Taxes Provided For in Prior Years	(69)	(85)	(101)	(159)	(97)	(220)	(309)
Investment Tax Credit Adjustment	25	29	36	38	72	76	95
Other Federal Taxes	37	44	47	62	69	74	82
State Income Taxes	18	22	25	20	55	63	82
Other State and Local Taxes	453	493	547	650	729	790	786
Total Taxes	741	790	833	955	1,227	1,315	1,499
Total Operating Expenses	8,164	10,135	12,285	14,308	16,787	17,708	18,067
Operating Income[a]	641	671	716	759	905	943	1,140
Total Operations							
Total Operating Revenues	$30,695	$36,232	$43,822	$51,085	$56,541	$60,883	$62,035
Operation Expenses	18,342	22,632	28,511	33,318	35,305	36,987	36,616
Maintenance Expenses	1,672	2,019	2,313	2,561	2,939	3,195	3,300
Total Operation and Maintenance Expenses	20,013	24,651	30,824	35,879	38,244	40,092	39,916
Depreciation, Retirements, Depletion, etc.	2,082	2,349	2,605	2,867	3,299	3,606	3,855
Federal Income Taxes[b]	470	350	541	811	1,544	1,324	1,864
Provision for Deferred Federal Income Taxes	833	963	1,369	1,534	1,557	2,431	2,502
Portion of Current Federal Income Taxes Provided For in Prior Years	(379)	(334)	(749)	(915)	(1,080)	(981)	(1,129)
Investment Tax Credit Adjustment	430	334	305	478	900	847	925
Other Federal Taxes	152	196	228	296	331	360	380
State Income Taxes	132	140	166	199	365	432	538
Other State and Local Taxes	2,422	2,605	2,911	3,266	3,581	3,998	4,014
Total Taxes	4,061	4,253	4,771	5,669	7,198	8,411	9,095
Total Operating Expenses	26,157	31,253	38,200	44,415	48,741	52,109	52,866
Operating Income	4,538	4,979	5,622	6,670	7,800	8,774	9,169
Other Operating Income	b	b	b	1	2	1	1
Allowance for Funds Used During Construction	887	1,231	1,569	1,833	2,247	2,975	2,568
Utility Operating Income	5,425	6,209	7,191	8,504	10,049	11,750	11,738
Other Income (Non-Operating) (Net)	247	302	496	605	625	478	745
Income Before Interest Charges	5,672	6,511	7,687	9,109	10,674	12,228	12,483
Interest on Long-Term Debt	2,238	2,594	3,039	3,544	4,052	4,615	4,718
Amortization of Debt Disc. Exp. and Premium	14	15	15	21	28	35	21
Other Interest Expense (Net)	119	188	453	620	567	410	383
Total Interest Charges	2,370	2,796	3,507	4,185	4,647	5,060	5,122
Net Income Before Extraordinary Items	3,302	3,715	4,180	4,924	6,027	7,168	7,361
Extraordinary Items, Less Taxes	0	0	11	1	41	9	15
Net Income	3,302	3,715	4,191	4,925	6,068	7,177	7,376
Preferred Dividends	637	708	801	891	986	1,073	1,022
Common Dividends	1,828	2,183	2,575	2,957	3,526	4,188	4,045
Note:							
Number of Companies Reporting	61	58	61	60	59	57	54
Total Op. Revenues of Companies Reporting (Millions)	$30,370	$34,771	$43,636	$50,989	$55,901	$60,231	$60,980
Gas Revenues of Companies Reporting (Millions)	$ 8,711	$10,370	$12,946	$15,039	$17,492	$18,479	$18,880

a. Includes "Other Operating Income" which was less than $500,000 in each year.
b. Less than $500,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-6
INVESTOR-OWNED GAS UTILITY INDUSTRY
GAS OPERATION AND MAINTENANCE EXPENSES
BY TYPE OF COMPANY, 1983-1984

(Millions)

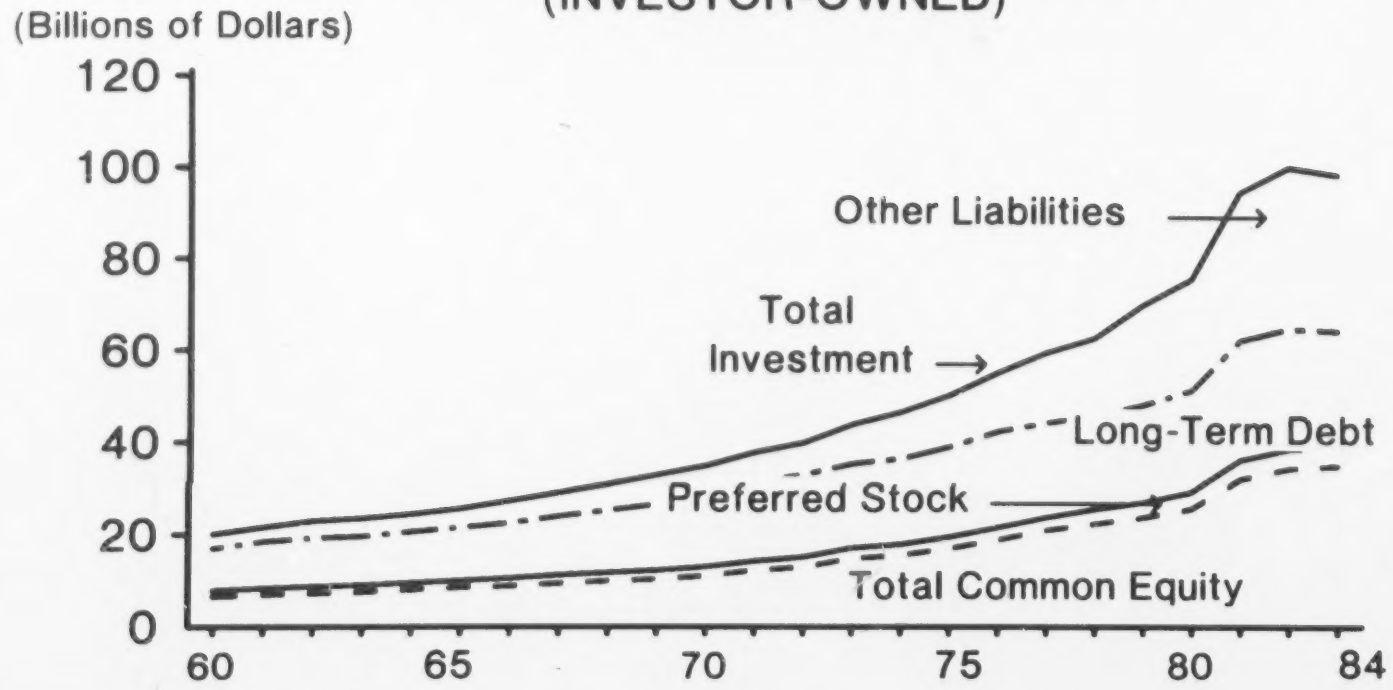
Total Industry Type of Expense	1983 Operation	1983 Maintenance	1984 Operation	1984 Maintenance
Purchased Gas Cost and Production Exp.	$86,776	$ 0	$85,264	$ 0
Other Production and Purch. Exp. and Adjustments	1,378	189	745	181
Production and Purchases, Total	88,154	189	86,009	181
Storage	570	94	574	88
Transmission	3,673	447	3,715	420
Distribution	1,247	770	1,306	822
Customer accounts	1,400	a	1,491	a
Sales	107	a	133	a
Administrative and General	3,413	62	3,725	68
Customer Service	369	a	421	0
Total	98,933	1,562	97,374	1,579
Distribution Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$12,336	$ 0	$12,450	$ 0
Other Production and Purch. Exp. and Adjustments	110	9	120	11
Production and Purchases, Total	12,446	9	12,570	11
Storage	31	8	27	8
Transmission	3	1	3	1
Distribution	394	241	416	260
Customer accounts	486	a	519	a
Sales	42	a	57	a
Administrative and General	601	12	716	14
Customer Service	61	a	62	0
Total	14,064	271	14,370	294
Transmission Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$41,199	$ 0	$41,162	$ 0
Other Production and Purch. Exp. and Adjustments	738	118	269	114
Production and Purchases, Total	41,937	118	41,431	114
Storage	352	37	373	36
Transmission	2,973	360	3,123	340
Distribution	a	a	a	a
Customer accounts	9	0	12	0
Sales	10	0	14	0
Administrative and General	1,211	8	1,311	9
Customer Service	4	0	5	0
Total	46,496	523	46,269	499
Integrated Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$19,645	$ 0	$18,043	$ 0
Other Production and Purch. Exp. and Adjustments	392	46	223	38
Production and Purchases, Total	20,037	46	18,266	38
Storage	132	37	107	32
Transmission	617	66	499	55
Distribution	430	254	473	286
Customer accounts	488	a	530	a
Sales	45	0	50	0
Administrative and General	903	19	936	21
Customer Service	154	0	182	0
Total	22,806	422	21,043	432
Combination Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$13,596	$ 0	$13,609	$ 0
Other Production and Purch. Exp. and Adjustments	138	16	133	18
Production and Purchases, Total	13,734	16	13,742	18
Storage	55	12	67	12
Transmission	80	20	90	24
Distribution	423	275	417	276
Customer accounts	417	0	430	0
Sales	10	0	12	0
Administrative and General	698	23	762	24
Customer Service	150	0	172	0
Total	15,567	346	15,692	354

a. Less than $500,000.
Note: See note previous page.

SECTION 13
BALANCE SHEETS

	1984	% Change 84/83
Gas Utility Plant		
(Millions)		
Total Industry	$83,118	+1.3
Distribution	11,980	+8.5
Transmission	37,268	−0.2
Integrated	19,033	−1.3
Combination	14,837	+3.1
Total Common Equity		
(Millions)		
Total Industry	$34,901	+1.8
Distribution	3,802	+8.5
Transmission	18,664	−0.5
Integrated	8,329	+1.7
Combination	4,106	+7.1

GAS UTILITY INDUSTRY INVESTMENT
(INVESTOR-OWNED)



REFERENCE: TABLE 13-1

TABLE 13-1
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960–1984

(Millions)

	1960	1965	1970	1975	1980	1983[R]	1984
ASSETS							
Total Gas Utility Plant	$20,835	$28,205	$38,541	$49,384	$67,071	$82,038	$83,118
Less Accum. Prov. for Depr. and Amort.	4,570	7,205	10,696	16,779	26,162	34,208	35,542
Net Gas Utility Plant (Total)	16,265	21,000	27,845	32,605	40,909	47,830	47,576
Investment and Fund Accounts	1,380	1,885	3,024	9,198[a]	15,530[a]	21,531[a]	21,872[a]
Current and Accrued Assets	2,185	2,545	3,674	7,543	17,243	27,571	25,367
Deferred Debits[b]	170	210	386	940	2,169	3,567	4,118
Total Assets	20,000	25,640	34,929	50,286[a]	75,851[a]	100,499[a]	98,933[a]
LIABILITIES							
Common Stock	3,540	4,360	4,727	5,803	6,968	7,703	7,296
Retained Earnings	1,860	2,715	4,230	7,911[a]	13,122[a]	18,411[a]	18,925[a]
Other Paid-in Capital[c]	1,045	1,390	2,063	3,245	5,597	8,169	8,680
Total Common Equity	6,465	8,465	11,020	16,959[a]	25,687[a]	34,283[a]	34,901[a]
Preferred Stock	1,345	1,540	1,945	2,541	3,628	4,205	4,058
Total Capital Stock	7,810	10,005	12,965	19,500[a]	29,315[a]	38,488[a]	38,959[a]
Bonds	6,265	7,525	9,248	10,493	9,574	9,246	8,987
Debentures	1,445	2,560	4,274	5,174	5,819	9,117	8,568
Other Long-Term Debt	1,420	1,430	2,159	3,877	6,674	8,189	7,944
Total Long-Term Debt	9,130	11,515	15,681	19,544	22,067	26,552	25,499
Total Capitalization	16,940	21,520	28,646	39,044[a]	51,382[a]	65,040[a]	64,458[a]
Current and Accrued Liabilities	2,420	3,035	4,832	8,158	18,119	25,150	23,043
Deferred Credits	85	215	370	752	1,683	3,366	3,577
Operating Reserves[d]	110	55	48	194	428	288	735
Contributions in Aid of Construction	95	155	245	86	90	118	120
Reserves for Deferred Income Taxes	350	660	788	207	480	540	592
Accumulated Deferred Income Taxes				1,845	3,669	5,997	6,408
Total Liabilities	20,000	25,640	34,929	50,286[a]	75,851[a]	100,499[a]	98,933[a]

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Includes "Capital Stock Discount and Expense" and "Reacquired Securities."
c. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
d. Includes "Non-current Liabilities" starting in 1984.
R – Revised.
Note: Data not directly comparable from year to year due to acquisition and mergers. See page ix.

TABLE 13-2
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1978-1984

(Millions)

	1978	1979	1980	1981	1982	1983	1984
ASSETS							
Total Gas Utility Plant	$9,619	$10,166	$10,990	$9,188	$9,755	$11,042	$11,980
Less Accum. Prov. for Depr. and Amort.	2,690	2,892	3,174	2,799	3,067	3,558	3,971
New Gas Utility Plant (Total)	6,929	7,274	7,816	6,389	6,688	7,484	8,009
Investment and Fund Accounts	356	464	459	454	523	564	659
Current and Accrued Assets	1,935	2,454	3,086	2,877	3,043	3,890	3,317
Deferred Debits	167	191	129	105	192	214	180
Total Assets	9,387	10,383	11,490	9,825	10,446	12,152	12,165
LIABILITIES							
Common Stock	1,064	1,108	1,119	837	925	974	805
Retained Earnings	1,388	1,531	1,630	1,349	1,425	1,669	1,921
Other Paid-in Capital	485	519	556	554	623	860	1,076
Total Common Equity	2,937	3,158	3,305	2,740	2,973	3,503	3,802
Preferred Stock	355	378	412	257	268	338	336
Total Capital Stock	3,292	3,536	3,717	2,997	3,241	3,841	4,138
Bonds	2,228	2,125	2,210	1,686	1,666	1,928	1,950
Debentures	127	121	98	126	123	309	345
Other Long-Term Debt	701	874	848	764	979	795	839
Total Long-Term Debt	3,056	3,120	3,156	2,576	2,768	3,032	3,134
Total Capitalization	6,348	6,656	6,873	5,573	6,009	6,873	7,272
Current and Accrued Liabilities	2,125	2,701	3,384	3,168	3,201	3,767	3,294
Deferred Credits	302	350	461	407	470	570	642
Operating Reserves[a]	20	23	28	19	18	22	28
Contributions in Aid of Construction	51	54	65	57	60	62	67
Reserves for Deferred Income Taxes	338	392	427	323	318	340	364
Accumulated Deferred Income Taxes	203	207	252	278	370	518	498
Total Liabilities	9,387	10,383	11,490	9,825	10,446	12,152	12,165

a. Includes "Non-current Liabilities" starting in 1984.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-3
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960-1984

(Millions)

	1960	1965	1970	1975	1980	1983	1984
ASSETS							
Total Gas Utility Plant	$8,960	$11,505	$16,363	$20,351	$30,334	$37,327	$37,268
Less Accum. Prov. for Depr. and Amort.	2,040	3,375	5,311	8,636	14,361	18,895	19,522
New Gas Utility Plant (Total)	6,920	8,130	11,052	11,714	15,973	18,432	17,746
Investment and Fund Accounts	870	1,060	1,889	6,791[a]	11,998[a]	15,400[a]	14,743[a]
Current and Accrued Assets	840	950	1,384	3,459	8,432	15,903	15,131
Deferred Debits[b]	65	100	192	516	1,371	2,294	2,551
Total Assets	8,695	10,240	14,517	22,480[a]	37,774[a]	52,029[a]	50,171[a]
LIABILITIES							
Common Stock	1,105	1,225	1,477	1,984	2,610	2,859	2,678
Retained Earnings	665	815	1,430	4,010[a]	7,984[a]	11,371[a]	11,257[a]
Other Paid-in Capital[c]	570	770	1,233	1,891	3,414	4,530	4,729
Total Common Equity	2,340	2,810	4,140	7,885[a]	14,008[a]	18,760[a]	18,664[a]
Preferred Stock	640	715	1,019	1,012	1,734	2,054	1,858
Total Capital Stock	2,980	3,525	5,159	8,897[a]	15,742[a]	20,814[a]	20,522[a]
Bonds	3,030	3,060	3,458	3,125	2,398	1,344	990
Debentures	770	1,545	2,569	3,124	3,732	6,216	5,578
Other Long-Term Debt	590	420	841	2,167	4,114	5,103	4,825
Total Long-Term Debt	4,390	5,025	6,868	8,415	10,244	12,663	11,393
Total Capitalization	7,370	8,550	12,027	17,312[a]	25,986[a]	33,477[a]	31,915[a]
Current and Accrued Liabilities	1,005	1,200	1,974	3,802	9,067	13,600	12,654
Deferred Credits	10	65	147	295	495	1,541	1,364
Operating Reserves[d]	65	15	14	113	174	173	531
Contributions in Aid of Construction	15	20	14	0	0	0	0
Reserves for Deferred Income Taxes	230	390	341	2	5	8	9
Accumulated Deferred Income Taxes				957	2,047	3,230	3,698
Total Liabilities	8,695	10,240	14,517	22,480[a]	37,774[a]	52,029[a]	50,171[a]

a. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Includes "Capital Stock Discount and Expense."
c. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
d. Includes "Non-current Liabilities" starting in 1984.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-4
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1978-1984

(Millions)

	1978	1979	1980	1981	1982	1983[R]	1984
ASSETS							
Total Gas Utility Plant	$12,659	$13,551	$13,756	$17,776	$19,190	$19,284	$19,033
Less Accum. Prov. for Depr. and Amort.	4,472	4,725	4,913	6,102	6,631	6,902	6,875
Net Gas Utility Plant (Total)	8,187	8,826	8,843	11,674	12,559	12,382	12,158
Investment and Fund Accounts	2,175	2,603	2,856	3,702	4,833	5,192	6,057
Current and Accrued Assets	2,623	3,558	4,456	5,127	5,975	6,371	5,315
Deferred Debits	304	384	453	517	773	628	447
Total Assets	13,289	15,370	16,608	21,020	24,140	24,573	23,977
LIABILITIES							
Common Stock	1,676	1,758	1,916	2,293	2,232	2,351	2,174
Retained Earnings	2,231	2,484	2,440	3,420	4,107	4,056	4,252
Other Paid-in Capital	818	825	906	1,120	1,255	1,780	1,903
Total Common Equity	4,726	5,067	5,262	6,833	7,594	8,187	8,329
Preferred Stock	418	448	423	606	722	690	770
Total Capital Stock	5,144	5,515	5,685	7,439	8,316	8,877	9,099
Bonds	1,714	1,667	1,605	2,747	2,331	2,386	2,307
Debentures	1,709	1,763	1,891	2,194	2,448	2,526	2,546
Other Long-Term Debt	849	1,163	1,329	1,429	1,810	1,611	1,538
Total Long-Term Debt	4,272	4,593	4,825	5,870	6,589	6,523	6,391
Total Capitalization	9,416	10,108	10,510	13,309	14,905	15,400	15,490
Current and Accrued Liabilities	2,678	3,852	4,454	5,627	6,625	6,516	5,731
Deferred Credits	328	328	381	561	785	726	938
Operating Reserves[a]	142	146	220	104	282	83	83
Contributions in Aid of Construction	15	19	21	37	43	51	48
Reserves for Deferred Income Taxes	62	70	47	185	188	192	219
Accumulated Deferred Income Taxes	648	847	975	1,197	1,311	1,605	1,468
Total Liabilities	13,289	15,370	16,608	21,020	24,140	24,573	23,977

a. Includes "Non-current Liabilities" starting in 1984.
R - Revised
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-5
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1978-1984

(Millions)

	1978	1979	1980	1981	1982	1983[R]	1984
ASSETS							
Total Gas Utility Plant	$10,408	$11,340	$ 11,991	$ 12,846	$ 13,760	$ 14,385	$ 14,837
Less Accum. Prov. for Depr. and Amort.	3,058	3,447	3,714	4,030	4,463	4,853	5,174
Net Gas Utility Plant (Total)	7,349	7,894	8,277	8,816	9,297	9,532	9,663
Electric Utility Plant	73,616	84,564	94,579	103,460	114,620	130,259	127,336
Less Accum. Prov. for Depr. and Amort.	15,531	17,898	20,174	22,477	24,838	27,787	28,609
Net Electric Utility Plant (Total)	58,084	66,666	74,405	80,983	89,782	102,472	98,727
Other	2,401	2,770	3,614	3,950	4,366	4,759	5,102
Less Accum. Prov. for Depr. and Amort.	690	797	958	1,062	1,195	1,331	1,441
Net Other (Total)	1,711	1,974	2,656	2,888	3,171	3,428	3,661
Investment and Fund Accounts	1,499	1,944	1,998	2,647	3,224	3,894	4,098
Current and Accrued Assets	8,305	10,109	11,659	12,562	13,556	14,615	15,923
Deferred Debits	1,001	1,715	1,983	2,597	3,284	4,474	9,335
Total Assets	77,949	90,301	100,978	110,493	122,314	138,415	141,407
LIABILITIES							
Common Stock	10,309	12,360	13,386	13,997	15,974	17,899	18,364
Retained Earnings	8,925	9,807	10,803	11,880	13,382	15,493	16,754
Other Paid-in Capital	5,593	5,932	7,301	8,686	10,047	11,777	10,887
Total Common Equity	24,826	28,099	31,490	34,483	39,403	45,169	46,005
Preferred Stock	8,765	9,739	10,719	11,244	11,903	13,234	12,258
Total Capital Stock	33,592	37,837	42,209	45,727	51,306	58,403	58,263
Bonds	28,561	31,252	34,010	35,632	38,912	42,284	41,905
Debentures	773	1,025	990	787	805	785	1,103
Other Long-Term Debt	2,392	3,186	3,871	4,889	5,947	8,010	8,317
Total Long-Term Debt	31,726	35,464	38,871	41,308	45,664	51,079	51,325
Total Capitalization	65,318	73,301	81,080	87,035	96,970	109,482	109,588
Current and Accrued Liabilities	7,505	10,517	12,286	14,338	14,172	14,929	15,285
Deferred Credits	2,288	2,970	3,506	4,126	5,427	6,237	7,091
Operating Reserves[a]	57	81	58	67	108	113	1,042
Contribution in Aid of Construction	20	26	38	50	52	57	61
Reserves for Deferred Income Taxes	475	529	8	4	4	a	4
Accumulated Deferred Income Taxes	2,286	2,878	4,002	4,873	5,581	7,593	8,336
Total Liabilities	77,949	90,301	100,978	110,493	122,314	138,415	141,407

a. Includes "Non-current Liabilities" starting in 1984.
R–Revised.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-6
TOTAL GAS UTILITY INDUSTRY PLANT BY TYPE OF COMPANY AND BY PLANT FUNCTION, 1960–1984

(Millions)

	1960	1965	1970	1975	1980	1983	1984
Total Industry							
Total Gas Utility Plant	**$21,525**	**$29,175**	**$39,914**	**$51,004**	**$69,275**	**$83,956**	**$85,132**
Production	2,925	3,180	3,657	4,776	8,199	10,950	10,314
Underground Storage	755	1,200	1,816	2,697	4,529	5,534	5,475
Other Storage	a	a	a	700	672	713	736
LNG	c	c	c	c	284	345	350
Transmission	9,410	12,435	17,188	20,530	25,418	31,657	31,186
Distribution	7,275	10,660	15,056	19,151	24,923	29,572	31,575
General and Intangible[b]	835	1,090	1,518	2,226	3,470	4,341	4,329
Construction Work in Progress	325	610	679	924	1,780	844	1,217
Total Investor-Owned Industry							
Total Gas Utility Plant	**$20,835**	**$28,205**	**$38,541**	**$49,384**	**$67,071**	**$82,038**	**$83,118**
Production	2,835	3,055	3,529	4,687	8,019	10,802	10,153
Underground Storage	755	1,190	1,770	2,639	4,451	5,511	5,451
Other Storage	a	a	a	648	632	618	637
LNG	c	c	c	c	273	325	328
Transmission	9,405	12,425	17,170	20,307	25,298	31,614	31,145
Distribution	6,750	9,935	13,989	18,080	23,343	28,290	30,184
General and Intangible[b]	785	1,020	1,451	2,125	3,334	4,070	4,047
Construction Work in Progress	305	580	632	896	1,721	808	1,173
Distribution Companies							
Total Gas Utility Plant	c	c	c	**$8,547**	**$10,990**	**$11,042**	**$11,980**
Production	c	c	c	387	539	306	346
Underground Storage	c	c	c	460	627	465	470
Other Storage	c	c	c	172	140	132	148
LNG	c	c	c	c	91	57	62
Transmission	c	c	c	425	338	142	155
Distribution	c	c	c	6,452	8,569	9,119	9,874
General and Intangible[b]	c	c	c	479	599	740	842
Construction Work in Progress	c	c	c	173	87	81	83
Transmission Companies							
Total Gas Utility Plant	**$8,960**	**$11,505**	**$16,363**	**$20,351**	**$30,334**	**$37,327**	**$37,268**
Production	1,430	1,570	1,842	2,650	5,098	6,738	6,449
Underground Storage	280	325	668	1,299	2,340	3,013	3,201
Other Storage	a	a	a	113	175	147	139
LNG	c	c	c	c	160	195	189
Transmission	6,880	9,040	13,238	15,322	20,194	25,336	25,296
Distribution	35	5	2	5	7	0	1
General and Intangible[b]	220	260	330	587	1,204	1,581	1,446
Construction Work in Progress	115	305	283	375	1,156	317	547
Integrated Companies							
Total Gas Utility Plant	c	c	c	**$10,960**	**$13,756**	**19,284**	**$19,033**
Production	c	c	c	1,240	1,914	3,221	2,833
Underground Storage	c	c	c	531	961	1,418	1,152
Other Storage	c	c	c	62	103	121	125
LNG	c	c	c	c	14	65	69
Transmission	c	c	c	3,418	3,308	4,280	3,779
Distribution	c	c	c	4,809	6,191	8,843	9,682
General and Intangible[b]	c	c	c	748	1,029	1,131	1,135
Construction Work in Progress	c	c	c	151	236	205	258
Combination Companies							
Total Gas Utility Plant	c	c	c	**$9,526**	**$11,991**	**$14,385**	**$14,837**
Production	c	c	c	410	468	537	525
Underground Storage	c	c	c	348	523	615	628
Other Storage	c	c	c	301	214	218	225
LNG	c	c	c	c	8	8	8
Transmission	c	c	c	1,144	1,458	1,856	1,915
Distribution	c	c	c	6,816	8,576	10,328	10,627
General and Intangible[b]	c	c	c	310	502	618	624
Construction Work in Progress	c	c	c	197	242	205	285

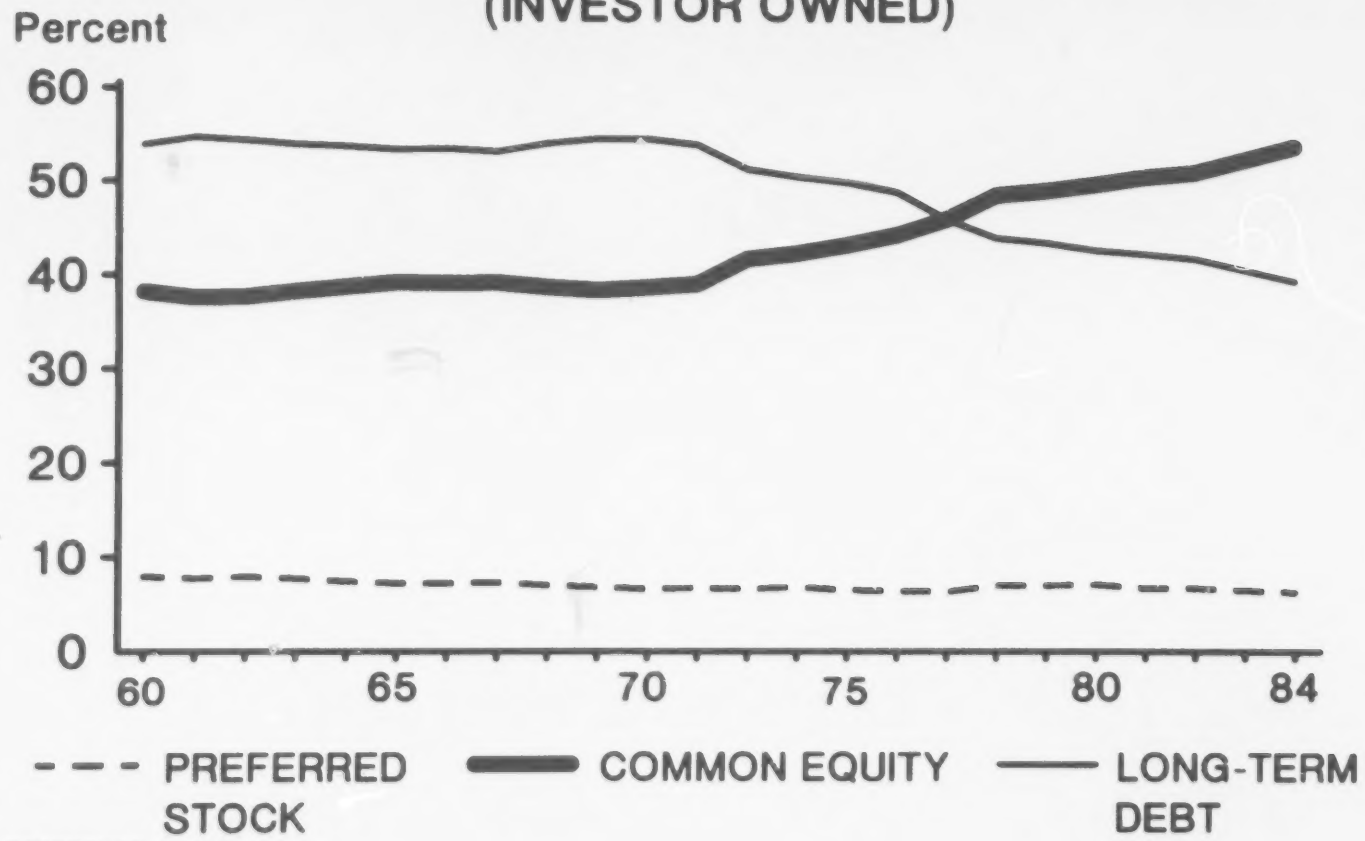
a. Included in "Production."
b. Includes plant acquisition adjustments and plant adjustments.
c. Not available.
R—Revised.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

SECTION 14
ANALYTICAL RATIOS

	1984	% Change 84/83
Capitalization Represented by (%)		
Long-term Debt	36.9	−2.9
Preferred Stock	6.3	−3.1
Common Equity	54.1	+2.7

The analytical ratios in this section have been calculated on a consistent basis for all years. These ratios are considered to be an acceptable set of indicators which provide trends on the condition of the investor-owned gas utility industry. Please contact the statistics department at A.G.A. for details of the formulas used to calculate these analytical ratios.

GAS UTILITY INDUSTRY TOTAL CAPITALIZATION (INVESTOR OWNED)



REFERENCE: TABLE 14-1

ANALYTICAL RATIOS

TABLE 14-1
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960-1984

	1960	1965	1970	1975	1980	1983	1984
Earnings							
Utility Operating Incomes as % of Total Plant	5.5	5.3	5.6	6.5	6.7	7.7	8.0
Utility Operating Income as % of Net Plant	7.0	7.2	7.8	9.9	10.9	13.3	14.0
Operating Revenue as % of Total Plant	41.7	40.9	42.5	61.9	128.1	141.5	138.9
Common Dividend Payout Ratio	67.3	68.3	67.6	57.2[a]	58.2[a]	67.8[a]	77.7[a]
Return on Common Equity	11.8	12.2	11.8	13.7[a]	15.2[a]	13.8[a]	14.7[a]
Return on Average Common Equity	12.2	12.5	12.2	14.3	15.8	14.3	14.9
Return on Net Plant	4.7	4.9	4.7	7.1	9.5	9.9	10.8
Pretax Coverage of:							
Total Interest Expense[b]	4.5	4.2	3.0	3.3	3.5	3.3	3.7
Long-Term Debt Interest Expense[b]	5.0	4.7	3.6	3.8	4.6	4.0	4.4
Allowance for Funds Used During Construction as % of Net Income	3.0	3.1	5.1	5.2	7.6	6.4	5.4
Expenses							
Operating Expenses as % of Operating Revenue	87.2	87.3	87.3	90.0	95.2	94.9	94.5
Maintenance Expenses as % of Total Plant	1.3	1.1	1.1	1.4	1.8	1.9	1.9
Depreciation Expenses as % of Total Plant	2.8	2.8	2.9	3.6	3.6	3.8	3.7
Depreciation Expenses as % of Depreciable Plant	c	c	c	3.6	4.1	4.0	3.9
Total Taxes as % of Total Plant	5.1	4.6	4.1	5.6	7.2	7.9	8.6
Total Taxes as % of Net Plant	6.5	6.2	5.6	8.5	11.8	13.6	15.0
Total Taxes as % of Net Income plus Total Taxes	56.0	52.4	52.5	53.9[a]	53.6[a]	55.8[a]	56.0[a]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[d]	39.4	36.4	29.8	30.4[a]	27.4[a]	30.3[a]	37.1[a]
Plant							
Total Plant as % of Total Operating Revenue	239.6	244.7	235.3	161.6	78.1	70.7	72.0
Net Plant as % of Total Operating Revenue	187.0	182.2	170.0	106.7	47.6	41.2	41.2
Depreciation Reserve as % of Total Plant	21.9	25.5	27.8	34.0	39.0	41.7	42.8
Depreciation Reserve as % of Depreciable Plant	c	c	c	35.8	44.0	43.9	44.9
Total Plant per Employee ($000)	100.9	137.1	182.1	251.6	328.1	383.3	397.9
Capitalization							
Long-term Debt as % of Net Plant	56.1	54.8	56.3	59.4	53.9	55.5	53.6
% Total Capitalization Represented by:							
a. Long-term Debt	53.9	53.5	54.7	50.1	42.9	40.8	39.6
b. Preferred Stock	7.9	7.2	6.8	6.5	7.1	6.5	6.3
c. Common Equity	38.2	39.3	38.5	43.4	50.0	52.7	54.1
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	c	c	c	53.8	55.3	66.5	67.2
b. Equity Issues	c	c	c	11.9	11.2	8.1	9.0
c. Debt Issues	c	c	c	34.3	33.5	25.4	23.8

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Reflects pre-federal income tax coverage.
c. Not available.
d. Includes "Investment Tax Credit Adjustment."

TABLE 14-2
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1978-1984

	1978	1979	1980	1981	1982	1983	1984
Earnings							
Utility Operating Income as % of Total Plant	6.9	7.5	6.9	7.2	6.9	7.4	7.7
Utility Operating Income as % of Net Plant	9.6	10.4	9.7	10.4	10.0	10.9	11.5
Operating Revenue as % of Total Plant	103.3	115.7	127.5	139.5	150.2	151.6	145.0
Common Dividend Payout Ratio	66.7	67.8	78.0	72.6	73.2	67.1	67.1
Return on Common Equity	13.9	15.5	12.8	12.4	11.8	14.0	15.7
Return on Average Common Equity	14.3	16.1	13.1	12.9	12.3	15.1	16.3
Return on Net Plant	5.9	6.8	5.4	5.3	5.2	6.6	7.4
Pretax Interest Coverage of:							
Total Interest Expense[a]	3.8	3.7	3.1	2.6	2.6	3.3	3.8
Long-Term Debt Interest Expense[a]	4.4	4.5	4.0	3.8	3.3	3.9	4.5
Allowance for Funds Used During Construction as % of Net Income	0.7	1.0	1.8	4.7	4.3	2.3	1.8
Expenses							
Operating Expenses as % of Operating Revenue	93.4	93.6	94.6	94.9	95.5	95.2	94.8
Maintenance Expenses as % of Total Plant	2.2	2.3	2.3	2.2	2.2	2.5	2.5
Depreciation Expenses as % of Total Plant	3.1	3.1	3.1	3.2	3.2	3.4	3.3
Depreciation Expenses as % of Depreciable Plant	3.2	3.2	3.2	3.2	3.3	3.4	3.4
Total Taxes as % of Total Plant	10.4	10.4	10.3	9.3	9.7	11.2	11.7
Total Taxes as % of Net Plant	14.4	14.5	14.5	13.4	14.1	16.5	17.5
Total Taxes as % of Net Income plus Total Taxes	69.8	67.1	71.5	70.4	71.7	70.3	69.1
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	36.8	31.8	35.2	28.9	29.9	28.8	40.6
Plant							
Total Plant as % of Total Operating Revenue	96.8	86.4	78.4	72.2	66.6	66.0	69.0
Net Plant as % of Total Operating Revenue	69.7	61.8	55.8	50.2	45.6	44.7	46.1
Depreciation Reserve as % of Total Plant	28.0	28.5	28.9	30.5	31.4	32.2	33.1
Depreciation Reserve as % of Depreciable Plant	28.8	29.4	30.3	31.1	32.0	32.8	33.9
Total Plant per Employee ($000)	189.7	200.1	210.5	219.5	234.1	241.4	259.2
Capitalization							
Long-term Debt as % of Net Plant	44.1	42.9	40.4	40.3	41.4	40.5	39.1
% Total Capitalization Represented by:							
a. Long-term Debt	48.1	46.9	45.9	46.2	46.0	44.1	43.1
b. Preferred Stock	5.6	5.7	6.0	4.6	4.5	4.9	4.6
c. Common Equity	46.3	47.7	48.1	49.2	49.5	51.0	52.3
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	71.0	61.3	44.9	49.2	55.0	65.2	78.0
b. Equity Issues	5.3	18.1	0.5	12.8	22.6	14.8	7.3
c. Debt Issues	23.6	20.6	54.6	38.0	22.4	20.0	14.7

a. Reflects pre-federal income tax coverage.
b. Includes "Investment Tax Credit Adjustment."

TABLE 14-3
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960-1984

	1960	1965	1970	1975	1980	1983	1984
Earnings							
Utility Operating Income as % of Total Plant	5.6	4.9	5.3	6.8	6.7	7.5	7.4
Utility Operating Incomes as % of Net Plant	7.3	7.0	7.8	11.7	12.7	15.4	15.6
Operating Revenue as % of Total Plant	35.6	35.5	36.2	58.5	137.2	143.5	143.1
Common Dividend Payout Ratio	64.8	75.9	72.5	50.9[a]	56.3[a]	66.9[a]	86.9[a]
Return on Common Equity	12.1	12.1	11.7	14.9[a]	15.6[a]	13.5[a]	14.4[a]
Return on Average Common Equity	12.7	12.3	12.1	15.8	16.4	13.9	14.4
Return on Net Plant	4.1	4.2	4.4	10.1	13.8	13.8	15.1
Pretax Coverage of:							
Total Interest Expense[b]	3.5	3.3	2.5	3.6	3.9	3.3	3.6
Long-Term Debt Interest Expense[b]	3.9	3.6	3.0	4.3	5.2	4.0	4.5
Allowance for Funds Used During Construction of % of Net Income	3.5	4.8	4.3	3.0	5.4	1.6	1.4
Expenses							
Operating Expenses as % of Operating Revenue	84.6	86.5	85.8	88.8	95.4	94.8	94.9
Maintenance Expenses as % of Total Plant	0.7	0.7	0.7	0.9	1.3	1.4	1.3
Depreciation Expenses as % of Total Plant	3.2	3.1	3.1	4.4	4.1	4.2	3.9
Depreciation Expenses as % of Depreciable Plant	c	c	c	4.4	4.5	4.5	4.1
Total Taxes as % of Total Plant	3.6	3.1	2.3	5.0	6.6	5.9	6.3
Total Taxes as % of Net Plant	4.6	4.4	3.4	8.6	12.5	11.8	13.3
Total Taxes as % of Net Income plus Total Taxes	50.2	48.4	40.0	44.6[a]	46.1[a]	44.3[a]	45.0[a]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[d]	34.0	35.9	26.2	35.6[a]	28.4[a]	31.3[a]	28.9[a]
Plant							
Total Plant as % of Total Operating Revenue	280.9	281.4	276.0	171.0	72.9	69.7	69.9
Net Plant as % of Total Operating Revenue	216.9	198.9	186.4	98.5	38.4	34.4	33.3
Depreciation Reserve as % of Total Plant	22.8	29.3	32.5	42.4	47.3	50.6	52.4
Depreciation Reserve as % of Depreciable Plant	c	c	c	43.8	52.1	53.2	55.2
Total Plant per Employee ($000)	285.4	388.7	505.0	547.1	673.1	796.9	789.6
Capitalization							
Long-term Debt as % of Net Plant	63.4	61.8	62.1	71.8	64.1	68.7	64.2
% Total Capitalization Represented by:							
a. Long-term Debt	59.6	58.8	57.1	48.6	39.4	37.8	35.7
b. Preferred Stock	8.7	8.4	8.5	5.8	6.7	6.1	5.8
c. Common Equity	31.8	32.9	34.4	45.5	53.9	56.0	58.5
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	c	c	c	55.4	65.1	71.9	78.6
b. Equity Issues	c	c	c	3.7	6.0	0.0	1.1
c. Debt Issues	c	c	c	40.9	28.9	28.1	20.3

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Reflects pre-federal income tax coverage.
c. Not available.
d. Includes "Investment Tax Credit Adjustment."

TABLE 14-4
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1978-1984

	1978	1979	1980	1981	1982	1983	1984
Earnings							
Utility Operating Income as % of Total Plant	5.9	5.6	5.8	6.3	7.1	7.5	8.3
Utility Operating Income as % of Net Plant	9.1	8.6	9.1	9.6	10.9	11.7	12.9
Operating Revenue as % of Total Plant	89.0	106.5	125.8	132.8	143.2	140.7	134.5
Common Dividend Payout Ratio	64.7	50.8	52.5	56.6	66.2	74.1	78.7
Return on Common Equity	12.0	15.2	15.4	16.0	14.2	12.8	13.1
Return on Average Common Equity	12.3	15.8	15.6	17.0	14.9	13.2	13.0
Return on Net Plant	6.9	8.7	9.1	9.4	8.6	8.4	8.8
Pretax Coverage of:							
Total Interest Expense[a]	3.3	3.4	3.2	3.2	3.0	3.4	3.7
Long-Term Debt Interest Expense[a]	3.9	4.3	4.6	4.8	4.2	4.1	4.4
Allowance for Funds Used During Construction as % of Net Income	1.7	1.5	2.0	1.6	1.8	0.9	0.7
Expenses							
Operating Expenses as % of Operating Revenue	93.6	94.9	95.6	95.4	95.2	94.8	93.9
Maintenance Expenses as % of Total Plant	1.8	2.0	2.1	2.3	2.4	2.2	2.3
Depreciation Expenses as % of Total Plant	3.2	3.4	3.6	3.5	3.5	3.7	3.6
Depreciation Expenses as % of Depreciable Plant	3.5	3.7	4.4	3.7	3.7	3.9	3.8
Total Taxes as % of Total Plant	5.9	6.3	6.4	8.0	8.5	9.2	9.9
Total Taxes as % of Net Plant	9.2	9.7	10.0	12.2	13.0	14.3	15.6
Total Taxes as % of Net Income plus Total Taxes	55.6	51.5	51.3	55.4	59.0	61.3	61.2
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	27.6	7.0	26.8	20.7	20.1	34.4	39.7
Plant							
Total Plant as % of Total Operating Revenue	112.4	93.9	79.5	75.3	69.8	71.1	74.4
Net Plant as % of Total Operating Revenue	72.7	61.1	51.1	49.4	45.7	45.7	47.5
Depreciation Reserve as % of Total Plant	35.3	34.9	35.7	34.3	34.6	35.8	36.1
Depreciation Reserve as % of Depreciable Plant	38.2	38.1	43.8	36.8	36.8	38.0	38.4
Total Plant per Employee ($000)	223.7	239.4	249.8	255.5	259.0	275.1	289.7
Capitalization							
Long-term Debt as % of Net Plant	52.2	52.0	54.6	50.3	52.5	52.7	52.6
% Total Capitalization Represented by:							
a. Long-term Debt	45.4	45.4	45.9	44.1	44.2	42.4	41.2
b. Preferred Stock	4.4	4.4	4.0	4.6	4.8	4.5	5.0
c. Common Equity	50.2	50.1	50.1	51.3	51.0	53.2	53.8
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	63.4	74.9	62.0	64.7	48.5	69.3	78.5
b. Equity Issues	2.9	1.3	2.6	7.8	3.8	9.7	5.3
c. Debt Issues	33.7	23.8	35.4	27.5	47.7	21.0	16.2

a. Reflects pre-federal income tax coverage.
b. Includes "Investment Tax Credit Adjustment."

ANALYTICAL RATIOS

TABLE 14-5
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1978-1984

	1978	1979	1980	1981	1982	1983	1984
Gas Operations							
Earnings							
Utility Operating Income as % of Total Plant	6.2	7.1	7.4	7.4	8.2	8.4	9.3
Utility Operating Income as % of Net Plant	8.7	10.3	10.7	10.8	12.2	12.7	14.3
Operating Revenue as % of Total Plant	84.6	95.3	108.4	117.3	128.6	129.7	129.5
Common Dividend Payout Ratio	52.5	52.4	59.0	64.1	57.9	62.0	52.7
Return on Common Equity	11.6	14.4	15.5	14.8	17.2	17.0	19.2
Return on Average Common Equity	13.2	15.2	15.9	15.3	17.9	17.4	19.8
Return on Net Plant	4.1	5.4	5.8	5.6	6.8	6.8	8.1
Pretax Coverage of:							
Total Interest Expense[a]	3.6	3.4	3.0	2.8	3.2	3.3	3.6
Long-Term Debt Interest Expense[a]	3.8	3.7	3.6	3.4	3.8	3.7	4.0
Allowance for Funds Used During Construction as % of Net Income	20.1	20.7	29.4	32.6	31.0	34.5	26.8
Expenses							
Operating Expenses as % of Operating Revenue	92.7	93.8	94.5	95.0	94.9	94.9	94.1
Maintenance Expenses as % of Total Plant	2.2	2.3	2.3	2.5	2.5	2.4	2.4
Depreciation Expenses as % of Total Plant	3.1	3.1	3.1	3.1	3.2	3.3	3.5
Depreciation Expenses as % of Depreciable Plant	3.1	3.1	3.6	3.2	3.3	3.6	3.7
Total Taxes as % of Total Plant	7.1	7.0	6.9	7.4	8.9	9.1	10.1
Total Taxes as % of Net Plant	10.9	10.0	10.1	10.8	13.2	13.8	15.5
Total Taxes as % of Net Income plus Total Taxes	59.7	61.2	59.3	61.6	62.5	63.2	62.2
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	27.7	26.9	15.5	21.6	22.8	20.1	40.1
Plant							
Total Plant as % of Total Operating Revenue	118.2	104.9	92.2	85.3	77.8	77.1	77.2
Net Plant as % of Total Operating Revenue	83.5	73.1	63.7	58.5	52.6	51.1	50.3
Depreciation Reserve as % of Total Plant	29.4	30.4	31.0	31.4	32.4	33.7	34.9
Depreciation Reserve as % of Depreciable Plant	29.9	31.0	36.3	32.6	33.7	36.3	36.5
Total Plant per Employee ($000)	212.0	215.6	230.3	253.3	267.4	280.2	298.3
All Operations							
Earnings							
Utility Operating Income as % of Total Plant	6.3	6.3	6.5	7.1	7.6	7.9	8.0
Utility Operating Income as % of Net Plant	8.1	8.1	8.4	9.2	9.8	10.2	10.5
Operating Revenue as % of Total Plant	35.5	36.7	39.8	42.5	42.6	40.8	42.1
Common Dividend Payout Ratio	68.6	72.6	76.0	73.3	69.4	68.6	63.7
Return on Common Equity	10.7	10.7	10.8	11.7	12.9	13.5	13.8
Return on Average Common Equity	11.1	11.4	11.4	12.3	13.8	14.4	13.9
Return on Net Plant	4.0	4.0	4.0	4.4	5.0	5.3	5.7
Pretax Coverage of:							
Total Interest Expense[a]	3.0	2.8	2.6	2.6	2.9	3.1	3.2
Long-Term Debt Interest Expense[a]	3.1	3.0	3.0	3.1	3.4	3.4	3.5
Allowance for Funds Used During Construction as % of Net Income	26.9	33.1	37.4	37.2	37.0	41.5	34.8
Expenses							
Operating Expenses as % of Operating Revenue	85.2	86.3	87.2	86.9	86.2	85.6	85.2
Maintenance Expenses as % of Total Plant	1.9	2.1	2.1	2.1	2.2	2.1	2.2
Depreciation Expenses as % of Total Plant	2.3	2.4	2.4	2.4	2.5	2.4	2.6
Depreciation Expenses as % of Depreciable Plant	3.2	3.3	3.2	3.1	3.3	3.4	3.5
Total Taxes as % of Total Plant	4.7	4.3	4.3	4.7	5.4	5.6	6.2
Total Taxes as % of Net Plant	6.0	5.6	5.6	6.1	7.0	7.3	8.1
Total Taxes as % of Net Income plus Total Taxes	55.2	53.4	53.2	53.5	54.3	54.0	55.2
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	21.4	15.6	16.8	20.7	28.7	23.2	27.4
Plant							
Total Plant as % of Total Operating Revenue	281.6	272.3	251.4	235.4	234.8	245.4	237.4
Net Plant as % of Total Operating Revenue	218.7	211.2	194.7	181.4	180.8	189.6	180.6
Depreciation Reserve as % of Total Plant	22.3	22.4	22.5	22.9	23.0	22.7	23.9
Depreciation Reserve as % of Depreciable Plant	26.6	26.8	30.1	29.7	30.4	32.1	32.3
Capitalization							
Long-term Debt as % of Net Plant	47.2	46.3	45.5	44.6	44.7	44.3	45.8
% Total Capitalization Represented by:							
a. Long-term Debt	48.6	48.4	48.0	47.5	47.1	46.7	46.8
b. Preferred Stock	13.4	13.3	13.2	12.9	12.3	12.1	11.2
c. Common Equity	38.0	38.3	38.8	39.6	40.6	41.3	42.0
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	50.0	24.7	32.5	41.3	49.8	54.7	45.4
b. Equity Issues	23.9	3.0	35.9	23.7	30.3	18.6	20.2
c. Debt Issues	26.1	72.3	31.6	35.0	19.9	26.7	34.4

a. Reflects pre-federal income tax coverage.
b. Includes "Investment Tax Credit Adjustment."

TABLE 14-6
SELECTED ANALYTICAL RATIOS RELATING TO INVESTOR-OWNED GAS UTILITY INDUSTRY OPERATING AND MAINTENANCE EXPENSES, 1970-1984[a]

Type of Activity	Total Operating and Maintenance Expense per Therm of Sales (cents)					Total Operating Revenue per Therm of Sales (cents)				
	1970	1975	1980	1983[R]	1984	1970	1975	1980	1983[R]	1984
Natural Gas Distribution[b]	5.85	11.53	29.37	49.53	47.67	8.46	15.12	34.82	58.13	56.94
Natural Gas Transmission	2.44	6.07	22.12	36.32	35.41	3.45	8.35	25.23	41.39	40.38

Type of Activity	Transmission and Distribution Expense per Mile of Pipe (dollars)					Total Cost of Purchases as Percent of Total Operating and Maintenance Expense (%)				
	1970	1975	1980	1983[R]	1984	1970	1975	1980	1983	1984
Natural Gas Distribution[b]	1,423.07	1,904.73	2,666.68	3,201.22	3,322.82	69.30	77.74	85.80	86.61	85.64
Natural Gas Transmission	2,398.21	3,836.43	11,510.06	15,797.24	15,676.43	89.00	86.09	90.66	89.44	88.83

Type of Activity	Customer Accounts Expense Per Customer (dollars)					Total Payroll as Percent of Total Operating and Maintenance Expense (%)				
	1970	1975	1980	1983	1984	1970	1975	1980	1983	1984
Natural Gas Distribution[b]	8.06	13.90	22.68	32.58	34.35	19.18	14.97	9.05	7.72	8.08
Natural Gas Transmission						7.41	5.99	2.97	3.18	3.27

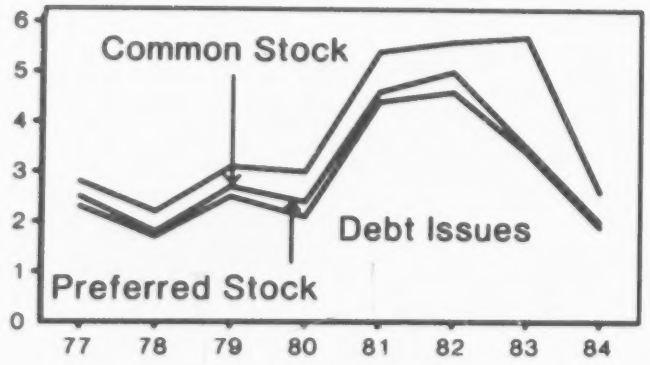
Type of Activity	Gross Sales Expense per Customer (dollars)				
	1970	1975	1980	1983	1984
Straight Natural Gas Distribution	6.56	2.90	2.94	3.03	4.05
Combination Natural Gas Distribution	4.01	1.16	0.60	0.57	0.76

a. Integrated companies excluded.
b. Includes both straight gas and combination companies.
R – Revised.

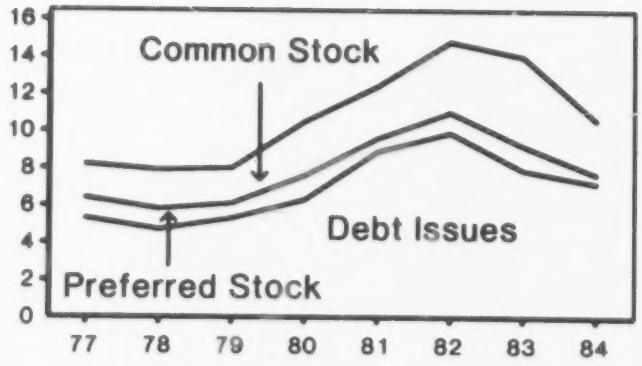
SECTION 15
SECURITY ISSUES

	1984	% Change 84/83
No. of Issues		
Total	386	−14.0
Common Stock	229	−16.7
Preferred Stock	13	−55.2
Debt Issues	144	− 0.7
Amount		
(Thousands)		
Total	$10,596,488	−24.4
Common Stock	2,852,559	−41.2
Preferred Stock	538,000	−58.7
Debt Issues	7,205,929	− 8.3

GAS UTILITY INDUSTRY NEW SECURITY ISSUES
(BILLIONS OF DOLLARS)



Distribution, Transmission and Integrated Companies



All Gas Utility Companies

REFERENCE: TABLES 15-1, 15-4, 15-6, 15-8, 15-10, 15-12

TABLE 15-1
GAS UTILITY INDUSTRY SECURITY ISSUES
OF DISTRIBUTION, INTEGRATED, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES
1960-1984[b]

	Total		Common Stock		Preferred Stock		Debt Issues							
							Total		Bonds		Debentures		Notes	
Year	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)
1960	193	$ 1,859,043	67	$ 240,509	19	$ 202,267	107	$1,416,267	79	$1,098,250	20	$ 276,323	8	$ 41,694
1965	176	1,728,807	60	99,444	28	324,790	88	1,304,573	61	854,010	18	410,900	9	39,663
1966	164	1,966,903	56	109,905	22	200,906	86	1,656,092	70	1,375,390	8	222,412	8	58,290
1967	187	2,930,328	50	59,205	23	265,847	114	2,605,276	82	1,997,644	21	565,274	11	42,358
1968	167	2,760,665	52	143,110	16	258,254	99	2,359,301	70	1,540,501	18	588,750	11	230,050
1969	204	3,443,576	78	457,935	18	267,762	108	2,717,879	64	1,664,945	26	758,569	18	294,365
1970	280	6,030,084	68	745,638	33	620,674	179	4,663,772	125	3,502,000	27	897,500	27	264,272
1971	330	7,012,900	96	1,283,271	47	965,439	187	4,764,190	103	3,193,366	26	927,500	58	643,324
1972	280	6,832,495	83	1,306,307	39	1,185,808	158	4,340,380	87	3,032,306	13	554,500	58	753,574
1973	286	6,302,378	96	1,408,410	39	1,073,959	151	3,820,009	82	2,466,690	6	260,000	63	1,093,319
1974	286	7,889,359	102	1,144,544	39	1,128,175	145	5,616,640	78	3,950,281	17	739,519	50	926,840
1975	353	8,312,575	141	1,973,385	42	1,059,396	170	5,279,794	101	3,661,125	19	911,571	50	707,098
1976	336	9,104,026	192	2,472,747	41	1,108,268	143	5,523,011	75	2,899,279	16	860,500	52	1,763,232
1977	336	8,244,438	167	1,864,904	40	1,106,130	129	5,273,404	70	2,956,200	10	461,500	49	1,855,704
1978	351	7,933,090	163	2,167,077	48	1,055,458	140	4,710,555	73	3,189,650	12	306,516	55	1,214,389
1979	322	7,959,649	162	1,860,954	30	773,692	130	5,325,003	69	2,908,350	11	895,000	50	1,521,653
1980	275	10,508,334	101	2,879,775	31	1,288,237	143	6,340,322	73	3,571,945	18	1,510,000	52	1,258,377
1981	472	12,384,931	246	2,816,829	27	654,940	199	8,913,162	110	5,051,554	16	1,207,500	73	2,654,108
1982	523	14,794,327	287	3,832,926	32	1,073,300	204	9,888,101	107	4,538,410	20	1,356,000	77	3,993,691
1983	499	14,014,964	275	4,855,205	29	1,301,151	145	7,858,608	86	4,651,154	12	1,024,703	47	2,182,751
1984	386	10,596,488	229	2,852,559	13	538,000	144	7,205,929	90	4,452,571	12	838,250	42	1,915,108

a. Holding companies used in this section are as follows: Columbia Gas Systems, Inc., MidCon Corporation, Northeast Utilities, Northern States Power Company, Public Service Company of Colorado, and Tenneco, Inc.

b. All new and refunding security issues, except sales by subsidiaries to parent companies and direct exchanges for which data were obtainable have been included. Short term notes for less than one year are omitted. Bonds, debentures, and notes are included in principal amounts; preferred stocks at stated or liquidating values; and common stocks at offerings prices.

TABLE 15-2
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF SECURITY ISSUES OF DISTRIBUTION, INTEGRATED, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES 1960-1984[b]

	Preferred Stock				Bonds				Debentures						
	Cost%		Yield%		Cost%		Yield%		Cost%		Yield%		Sample Amount (000)		
Year	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Preferred Stock	Bonds	Debentures
1960	5.61	5.51	5.50	5.45	5.22	5.03	5.17	4.98	5.22	5.09	5.14	5.03	$ 192,767	$1,017,700	$ 266,602
1965	4.71	4.78	4.69	4.76	4.77	4.74	4.75	4.71	4.84	4.87	4.81	4.82	268,200	806,460	403,700
1966	5.60	5.61	5.59	5.57	5.80	5.80	5.74	5.73	5.94	5.91	5.86	5.83	89,130	1,251,935	150,000
1967	6.15	6.18	6.10	6.11	6.17	6.18	6.11	6.10	6.43	6.43	6.32	6.35	224,370	1,882,995	507,500
1968	6.69	6.63	6.62	6.55	6.80	6.82	6.73	6.80	7.13	7.19	7.04	7.10	133,000	1,448,801	442,000
1969	8.08	8.04	7.95	7.93	7.66	7.61	8.52	8.22	8.39	8.47	8.52	8.22	226,888	1,664,945	758,569
1970	9.25	9.27	9.16	9.18	9.04	9.08	9.06	9.26	9.16	9.36	9.06	9.26	570,674	3,492,500	897,000
1971	8.16	7.98	8.05	7.87	8.06	7.90	7.97	7.81	8.16	8.14	8.07	8.05	922,312	3,098,589	912,500
1972	7.70	7.65	7.62	7.56	7.60	7.56	7.53	7.50	7.53	7.44	7.46	7.38	1,074,539	2,631,306	455,500
1973	7.72	7.61	7.66	7.54	7.98	7.93	7.91	7.87	7.80	7.77	7.73	7.71	1,051,459	2,137,890	200,000
1974	9.96	9.83	9.82	9.68	9.76	9.84	9.67	9.75	9.48	9.34	9.40	9.25	996,175	3,222,000	535,000
1975	10.87	10.89	10.55	10.53	10.10	10.06	10.00	9.97	10.28	10.31	10.17	10.20	1,028,515	3,346,050	801,000
1976	10.15	9.49	9.16	9.24	8.96	9.01	8.87	8.93	8.88	8.87	8.81	8.80	1,050,268	2,826,590	735,000
1977	8.50	8.45	8.34	8.31	8.51	8.50	8.45	8.44	8.74	8.36	8.63	8.29	973,512	2,682,500	265,000
1978	8.84	8.90	8.75	8.68	8.40	8.18	8.38	8.01	9.26	9.02	9.12	8.89	806,206	2,669,900	150,000
1979	9.05	9.32	9.03	9.23	11.14	10.55	11.12	10.48	10.81	11.12	10.65	11.04	705,500	2,348,300	645,000
1980	11.91	12.40	11.67	12.20	11.99	12.92	11.90	12.82	13.07	12.67	12.97	12.57	935,560	3,038,400	925,000
1981	13.75	14.06	13.57	13.80	15.06	16.55	14.77	16.29	16.24	16.11	15.80	15.76	630,500	3,956,154	1,207,500
1982	14.39	14.61	14.20	14.32	14.39	14.94	14.27	14.82	15.46	15.19	15.17	14.95	858,800	3,914,100	1,356,000
1983	11.69	12.18	11.42	11.85	11.82	12.10	11.53	11.96	12.40	13.54	12.23	13.39	1,209,175	3,958,380	780,000
1984	13.34	13.22	13.11	12.97	12.61	12.99	12.43	12.84	11.82	11.83	11.72	11.72	538,000	3,662,570	786,250

a. Refer to Table 15-1 for name of holding companies.

b. Includes only those preferred stocks, bonds, and debentures shown in Table 15-1 for which necessary cost and yield data were available.

Definitions: "Cost" refers to the expenses incurred by a company relative to new security issues over the life of debt issues and fixed dividends (if applicable) on preferred stocks. It includes underwriter fees, plus discount expenses less premiums.

"Yield" is the rate of return on investment by a buyer of these debt issues and fixed dividends (if applicable) expected on preferred stock. It includes underwriter fees, plus premium expenses less discounts.

TABLE 15-3
GAS UTILITY INDUSTRY LONG TERM DEBT ISSUES, BY MOODY'S BOND RATING CATEGORY, 1984

	Issues		Cost%		Yield%	
Rating	Number	Sample Amount (000)	Average	Weighted Average	Average	Weighted Average
Aaa	*	*	*	*	*	*
Aa	2	$ 65,000	12.80	12.69	12.69	12.59
A	5	$960,000	13.42	13.40	13.32	13.30
Baa	8	$725,000	14.21	14.14	14.12	14.03
Ba	2	$185,000	16.10	16.16	15.83	15.89
B	1	$100,000	17.86	17.86	17.50	17.50

*No issues used in this sample.

TABLE 15–4
GAS UTILITY INDUSTRY COMMON STOCK ISSUES, BY TYPE OF COMPANY
1978–1984[a]

Type of Company	1978	1979	1980	1981	1982	1983	1984
Total							
Amount (000)	$2,167,077	$1,860,954	$2,879,775	$2,816,829	$3,832,926	$4,855,205	$2,852,559
No. of Issues	163	162	101	246	287	275	229
Distribution							
Amount (000)	$77,052	$53,295	$277	$178,822	$69,503	$272,950	$224,065
No. of Issues	16	9	4	33	30	43	34
Transmission							
Amount (000)	$80,214	$323,125	$453,019	$565,822	$375,298	$159,889	$35,625
No. of Issues	13	15	7	11	10	7	1
Integrated							
Amount (000)	$182,100	$43,012	$156,900	$84,240	$121,926	$1,835,208	$334,095
No. of Issues	19	15	5	20	44	34	39
Combination Utilities							
Amount (000)	$1,701,314	$1,385,842	$2,053,120	$1,839,529	$2,984,412	$2,394,543	$1,742,913
No. of Issues	106	120	80	169	194	183	136
Holding[b]							
Amount (000)	$126,397	$55,680	$216,459	$148,416	$281,787	$192,615	$515,861
No. of Issues	9	3	5	13	9	8	19

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

TABLE 15-5
GAS UTILITY INDUSTRY INDEXES OF COMMON STOCK PRICES, DIVIDENDS, YIELDS, AND EARNINGS BY TYPE OF COMPANY, 1979–1984

Type of Company	Year	1979		1980		1981		1982		1983		1984	
	Week	Jun 29	Dec 27	Jun 27	Dec 31	Jun 26	Dec 31	Jun 25	Dec 31	Jul 1	Dec 30	Jun 29	Dec 30
Natural Gas Industry													
a) Market Price ($ Per Share)		87.10	104.10	108.29	139.35	108.36	106.96	84.47	92.94	113.52	113.40	109.88	116.05
b) Dividend ($ Per Share)		5.56	5.97	6.18	6.45	6.70	6.91	6.89	7.14	7.05	7.29	7.44	7.71
c) Yield (Percent)		6.38	5.73	5.71	4.63	6.18	6.46	8.16	7.68	6.21	6.43	6.77	6.64
d) Earnings ($ Per Share)*		11.76	12.22	13.06	14.21	14.55	16.97	16.34	14.98	13.11	12.92	14.88	12.46
Distribution Companies													
a) Market Price ($ Per Share)		54.04	53.83	54.05	56.19	54.79	53.50	48.27	50.62	55.49	55.79	56.87	69.70
b) Dividend ($ Per Share)		4.34	4.44	4.61	4.68	4.96	5.12	5.29	5.39	5.42	5.55	5.67	5.88
c) Yield (Percent)		8.03	8.25	8.53	8.33	9.05	9.57	10.96	10.65	9.77	9.95	9.97	8.44
d) Earnings ($ Per Share)*		7.23	8.00	8.53	8.07	8.81	8.77	8.22	7.46	6.34	6.66	9.99	2.58
Transmission Companies													
a) Market Price ($ Per Share)		109.73	134.16	138.88	186.77	137.87	135.42	99.17	114.32	141.88	142.96	137.19	145.38
b) Dividend ($ Per Share)		6.40	7.00	7.20	7.59	7.85	8.29	8.56	8.90	8.59	8.89	9.04	9.39
c) Yield (Percent)		5.83	5.22	5.18	4.06	5.69	6.12	8.63	7.79	6.05	6.22	6.59	6.46
d) Earnings ($ Per Share)*		14.74	15.30	15.76	19.32	17.45	23.17	21.57	19.64	16.99	15.81	18.16	17.01

* Earnings are for twelve month periods.
Source: Moody's Investor Service, *Moody's Public Utility News Reports.*

TABLE 15–6
GAS UTILITY INDUSTRY PREFERRED STOCK ISSUES, BY TYPE OF COMPANY
1978–1984[a]

Type of Company	1978	1979	1980	1981	1982	1983	1984
Total							
Amount (000)	$1,055,458	$773,692	$1,288,237	$654,940	$1,073,300	$1,301,151	$538,600
No. of Issues	48	30	31	27	32	29	13
Distribution							
Amount (000)	$116,533	$92,575	$34,000	$21,000	$8,000	$30,000	$10,000
No. of Issues	8	5	3	2	1	1	1
Transmission							
Amount (000)	$3,000	$70,117	$259,737	$125,206	$285,000	$0	$0
No. of Issues	1	3	1	4	6	0	0
Integrated							
Amount (000)	$22,252	$33,500	$3,500	$27,000	$102,000	$89,494	$100,000
No. of Issues	2	2	1	1	4	5	1
Combination Utilities							
Amount (000)	$913,673	$577,500	$991,000	$481,734	$675,300	$998,922	$428,000
No. of Issues	37	20	26	20	20	19	11
Holding[b]							
Amount (000)	$0	$0	$0	$0	$3,000	$182,735	$0
No. of Issues	0	0	0	0	1	4	0

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

TABLE 15-7
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF PREFERRED STOCK ISSUES
1978-1984[a]

	1978		1979		1980		1981		1982		1983		1984	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	8.84	8.75	9.05	9.03	11.91	11.67	13.75	13.57	14.39	14.20	11.69	11.42	13.34	13.11
Weighted Average	8.90	8.68	9.32	9.23	12.40	12.20	14.06	13.80	14.61	14.32	12.18	11.85	13.22	12.97
Sample Amount (000)		$806,206		$705,500		$935,500		$630,500		$858,800		$1,209,175		$538,000
Distribution														
Average	8.63	8.54	9.34	9.30	9.26	9.08	15.98	15.65	13.00	13.00	11.76	11.50	12.88	12.88
Weighted Average	8.49	8.41	9.34	9.30	9.34	9.13	16.41	15.79	13.00	13.00	11.76	11.50	12.88	12.88
Sample Amount (000)		$83,533		$70,000		$34,000		$21,000		$8,000		$30,000		$10,000
Transmission														
Average	9.50	9.40	8.38	8.38	c	c	13.28	13.00	14.55	14.27	c	c	c	c
Weighted Average	9.50	9.40	8.43	8.43	c	c	13.92	13.60	14.63	14.28	c	c	c	c
Sample Amount (000)		$3,000		$70,000		$0		$125,000		$175,000		$0		$0
Integrated														
Average	8.70	8.62	9.50	9.50	9.50	9.50	12.25	12.25	14.00	14.00	11.16	10.92	10.88	10.62
Weighted Average	8.70	8.62	9.50	9.50	9.50	9.50	12.25	12.25	14.00	14.00	11.04	10.81	10.88	10.62
Sample Amount (000)		$12,000		$8,500		$3,500		$27,000		$5,000		$85,000		$100,000
Combination Utilities														
Average	8.52	8.45	8.99	8.93	12.38	12.12	13.67	13.45	14.45	14.26	11.79	11.51	13.60	13.35
Weighted Average	8.95	8.72	9.42	9.32	12.52	12.32	14.10	13.86	14.63	14.35	12.36	12.01	13.78	13.52
Sample Amount (000)		$707,673		$557,000		$898,000		$457,500		$670,800		$995,425		$428,000
Holding[b]														
Average	c	c	c	c	c	c	c	c	c	c	11.48	11.27	c	c
Weighted Average	c	c	c	c	c	c	c	c	c	c	11.46	11.26	c	c
Sample Amount (000)		$0		$0		$0		$0		$0		$98,750		$0

a. Includes only those issues in Table 15-6 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
c. No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer. See page 170.

TABLE 15–8
GAS UTILITY INDUSTRY BOND ISSUES, BY TYPE OF COMPANY
1978–1984[a]

Type of Company	1978	1979	1980	1981	1982	1983	1984
Total							
Amount (000)	$3,189,650	$2,908,350	$3,571,945	$5,051,554	$4,538,410	$4,651,154	$4,452,571
No. of Issues	73	69	73	110	107	86	90
Distribution							
Amount (000)	$503,750	$371,150	$25,545	$560,500	$135,000	$493,321	$117,355
No. of Issues	11	14	3	20	12	13	7
Transmission							
Amount (000)	$0	$167,000	$53,000	$875,000	$425,000	$225,000	$0
No. of Issues	0	3	1	5	4	2	0
Integrated							
Amount (000)	$188,000	$111,100	$122,500	$221,400	$150,647	$449,103	$227,150
No. of Issues	8	9	7	6	8	12	6
Combination Utilities							
Amount (000)	$2,446,400	$2,259,100	$3,160,900	$3,297,909	$3,701,163	$3,147,730	$3,922,866
No. of Issues	52	43	59	74	81	52	73
Holding[b]							
Amount (000)	$51,500	$0	$210,000	$96,745	$126,600	$336,000	$185,200
No. of Issues	2	0	3	5	2	7	4

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

TABLE 15-9
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF BOND ISSUES 1978-1984[a]

	1978		1979		1980		1981		1982		1983		1984	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	8.40	8.38	11.14	11.12	11.99	11.90	15.06	14.77	14.39	14.27	11.82	11.63	12.61	12.43
Weighted Average	8.18	8.01	10.55	10.48	12.92	12.82	16.55	16.29	14.94	14.82	12.10	11.96	12.99	12.84
Sample Amount (000)		$2,669,900		$2,348,300		$3,038,400		$3,956,154		$3,914,100		$3,958,380		$3,662,570
Distribution														
Average	7.00	7.10	11.32	11.26	12.09	12.00	16.09	15.99	15.30	15.30	12.16	12.07	13.41	13.38
Weighted Average	6.67	6.61	11.10	11.42	12.09	12.00	16.68	16.58	15.81	15.81	12.67	12.56	12.81	12.72
Sample Amount (000)		$310,000		$224,150		$15,000		$497,500		$57,000		$350,450		$59,750
Transmission														
Average	c	c	10.63	10.53	c	c	16.65	16.45	13.79	13.58	13.04	12.91	c	c
Weighted Average	c	c	10.63	10.53	c	c	16.47	16.27	14.18	13.98	13.04	12.91	c	c
Sample Amount (000)		$0		$50,000		$0		$175,000		$225,000		$125,000		$0
Integrated														
Average	8.50	8.45	12.85	12.75	12.92	12.87	15.88	15.76	15.12	14.98	12.27	12.13	14.47	14.29
Weighted Average	8.96	8.88	12.85	12.75	12.30	12.23	16.05	15.91	15.39	15.23	12.08	11.97	14.34	14.22
Sample Amount (000)		$157,000		$70,000		$47,000		$218,000		$143,000		$394,000		$110,000
Combination Utilities														
Average	8.85	8.78	9.74	9.92	11.85	11.75	14.73	14.57	14.28	14.15	11.73	11.55	12.46	12.27
Weighted Average	9.19	9.12	10.40	10.29	12.93	12.83	16.55	16.37	14.95	14.83	12.09	11.96	12.92	12.78
Sample Amount (000)		$2,152,900		$2,004,150		$2,766,400		$2,968,909		$3,362,500		$2,777,930		$3,367,820
Holding[b]														
Average	9.23	9.18	c	c	13.23	13.14	13.40	13.18	14.66	14.38	10.93	10.50	13.88	13.82
Weighted Average	9.23	9.18	c	c	12.95	12.86	15.57	15.30	15.09	14.98	11.20	10.87	13.61	13.55
Sample Amount (000)		$50,000		$0		$210,000		$96,745		$126,600		$311,000		$125,000

a. Includes only those issues in Table 15-8 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
c. No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer. See page 170.

TABLE 15–10
GAS UTILITY INDUSTRY DEBENTURE ISSUES, BY TYPE OF COMPANY
1978–1984[a]

Type of Company	1978	1979	1980	1981	1982	1983	1984
Total							
Amount (000)	$306,516	$895,000	$1,510,000	$1,207,500	$1,356,000	$1,024,703	$838,250
No. of Issues	12	11	18	16	20	12	12
Distribution							
Amount (000)	$0	$40,000	$0	$88,500	$0	$165,000	$0
No. of Issues	0	1	0	4	0	3	0
Transmission							
Amount (000)	$130,000	$450,000	$663,500	$689,000	$703,000	$324,703	$437,000
No. of Issues	2	4	8	7	10	3	6
Integrated							
Amount (000)	$106,500	$215,000	$416,500	$340,000	$308,000	$460,000	$120,000
No. of Issues	7	3	5	3	4	5	3
Combination Utilities							
Amount (000)	$70,016	$15,000	$230,000	$90,000	$245,000	$75,000	$181,250
No. of Issues	3	1	3	2	5	1	2
Holding[b]							
Amount (000)	$0	$175,000	$200,000	$0	$100,000	$0	$100,000
No. of Issues	0	2	2	0	1	0	1

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

TABLE 15-11
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF DEBENTURE ISSUES
1978-1984[a]

	1978		1979		1980		1981		1982		1983		1984	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	9.26	9.12	10.81	10.65	13.07	12.97	16.24	15.80	15.46	15.17	12.40	12.23	11.82	11.72
Weighted Average	9.02	8.89	11.12	11.04	12.67	12.57	16.11	15.76	15.19	14.95	13.54	13.39	11.83	11.72
Sample Amount (000)		$150,000		$645,000		$925,000		$1,207,500		$1,356,000		$880,000		$786,250
Distribution														
Average	c	c	9.93	9.88	c	c	16.22	15.81	c	c	12.68	12.37	c	c
Weighted Average	c	c	9.93	9.88	c	c	17.20	16.85	c	c	12.41	12.23	c	c
Sample Amount (000)		$0		$40,000		$0		$88,500		$0		$165,000		$0
Transmission														
Average	c	c	11.31	11.22	13.89	13.81	16.65	16.24	15.85	15.66	13.30	13.19	13.16	13.06
Weighted Average	c	c	11.40	11.30	14.10	14.02	16.49	16.09	15.46	15.26	13.30	13.19	12.84	12.72
Sample Amount (000)		$0		$200,000		$175,000		$689,000		$703,000		$200,000		$385,000
Integrated														
Average	9.69	9.55	10.75	10.68	11.65	11.56	14.80	14.43	13.96	13.64	11.79	11.69	11.80	11.72
Weighted Average	9.21	9.11	10.98	10.94	11.17	11.09	14.86	14.69	13.85	13.63	11.21	11.12	12.30	12.26
Sample Amount (000)		$80,000		$215,000		$400,000		$340,000		$308,000		$440,000		$120,000
Combination Utilities														
Average	8.83	8.68	10.92	10.38	14.54	14.39	17.02	16.33	15.85	15.37	12.26	12.00	9.97	9.75
Weighted Average	8.81	8.64	10.92	10.38	14.64	14.48	16.78	16.22	15.95	15.53	12.26	12.00	10.26	10.03
Sample Amount (000)		$70,000		$15,000		$150,000		$90,000		$245,000		$75,000		$181,250
Holding[b]														
Average	c	c	11.16	11.08	12.93	12.84	c	c	15.57	15.57	c	c	10.26	10.25
Weighted Average	c	c	11.27	11.18	12.93	12.84	c	c	15.46	15.46	c	c	10.26	10.25
Sample Amount (000)		$0		$175,000		$200,000		$0		$100,000		$0		$100,000

a. Includes only those issues in Table 15-10 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
c. No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer. See page 170.

TABLE 15–12
GAS UTILITY INDUSTRY NOTE ISSUES, BY TYPE OF COMPANY
1978–1984[a]

Type of Company	1978	1979	1980	1981	1982	1983	1984
Total							
Amount (000)	$1,214,389	$1,521,653	$1,258,377	$2,654,108	$3,993,691	$2,182,751	$1,915,108
No. of Issues	55	50	52	73	77	47	42
Distribution							
Amount (000)	$97,854	$140,500	$153,900	$123,135	$550,515	$438,635	$185,600
No. of Issues	6	6	4	11	9	7	4
Transmission							
Amount (000)	$468,150	$666,066	$455,764	$1,209,039	$1,671,000	$613,058	$296,500
No. of Issues	12	7	16	21	19	9	5
Integrated							
Amount (000)	$215,441	$318,770	$228,571	$281,479	$647,675	$185,356	$369,626
No. of Issues	15	14	9	7	15	7	7
Combination Utilities							
Amount (000)	$432,775	$396,317	$383,142	$978,455	$1,124,501	$762,967	$640,182
No. of Issues	21	23	22	33	34	20	20
Holding[b]							
Amount (000)	$169	$0	$37,000	$62,000	$0	$182,735	$423,200
No. of Issues	1	0	1	1	0	4	6

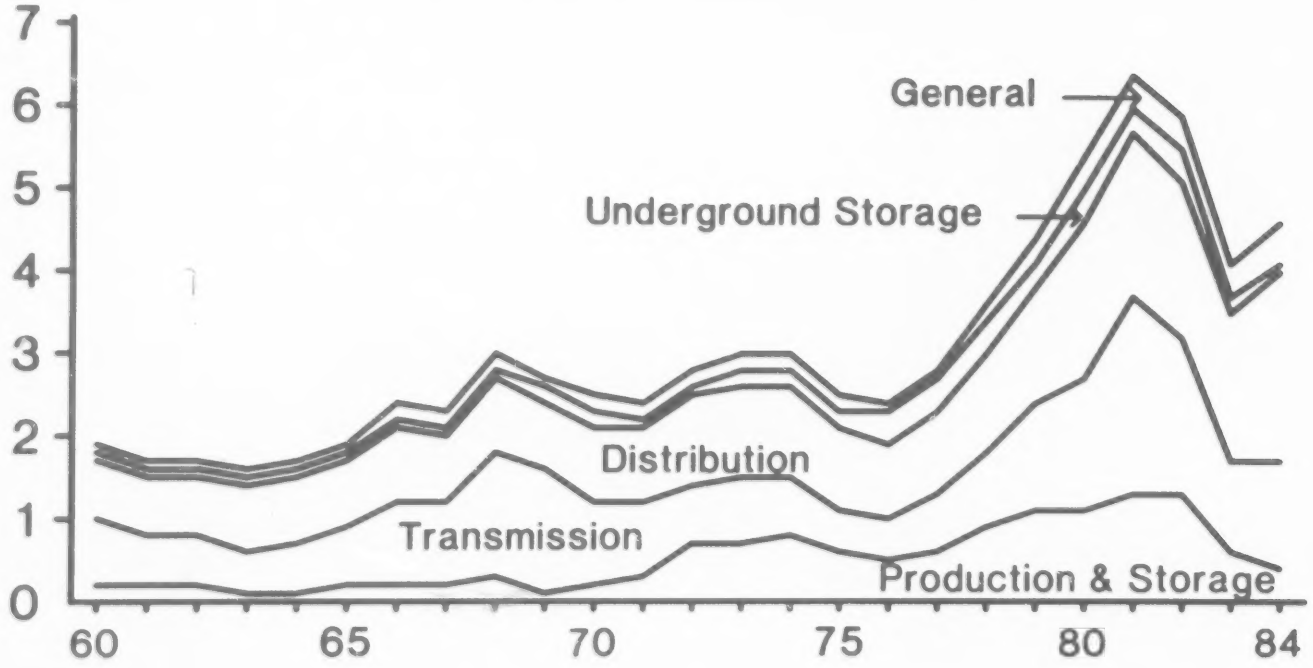
a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

SECTION 16
CONSTRUCTION EXPENDITURES

	1984	% Change 84/83
Construction Expenditures		
(Millions)		
Total	$4,645	+13.9
Production & Storage	422	−30.5
Transmission	1,301	+22.2
Underground Storage	121	−12.9
Distribution	2,266	+22.8
General	535	+26.8

CHART 16-1

GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES (BILLIONS OF DOLLARS)



REFERENCE: TABLE 16-1

TABLE 16-1
GAS UTILITY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1960–1988*

(Millions)

Year	Total	Production and Storage	Transmission	Underground Storage	Distribution	General
1960	$1,845	$ 157	$ 848	$ 59	$ 696	$ 85
1961	1,662	172	654	55	687	94
1962	1,673	177	613	53	708	122
1963	1,558	138	461	106	752	101
1964	1,701	120	616	84	784	97
1965	1,935	156	770	69	824	116
1966	2,374	182	1,038	151	869	134
1967	2,252	186	1,006	91	848	121
1968	2,972	259	1,577	88	913	135
1969	2,686	83	1,511	128	863	101
1970	2,507	203	1,019	167	913	205
1971	2,419	340	842	171	888	178
1972	2,822	717	678	177	1,081	169
1973	2,966	771	746	201	1,094	155
1974	2,965	830	632	230	1,097	176
1975	2,466	555	590	276	910	136
1976	2,425	466	531	362	926	140
1977	2,833	620	670	323	1,048	172
1978	3,581	881	935	321	1,228	215
1979	4,366	1,125	1,226	281	1,448	286
1980	5,350	1,150	1,583	396	1,869	352
1981	6,389	1,346	2,352	326	1,955	410
1982	5,939	1,322	1,921	368	1,881	447
1983	4,078	607	1,005	139	1,845	422
1984	4,645	422	1,301	121	2,266	535
1985(forecast)	6,125	805	1,880	144	2,538	758
1986(forecast)	6,131	780	1,924	189	2,740	498
1987(forecast)	6,054	827	1,705	176	2,851	495
1988(forecast)	6,311	800	1,899	178	2,928	506

* For companies not reporting 1987 and 1988 forecasts, data extrapolated from earlier years.

TABLE 16-2
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1978–1984

	1978	1979	1980	1981	1982	1983	1984
Production and Storage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SNG Plant	8.6	0.6	3.1	2.3	2.7	0.5	0.8
LNG Plant	a	a	0.1	0.1	a	0.8	0.4
Propane Plant	0.8	2.2	2.3	3.0	3.8	7.3	11.3
Exploration and Drilling	21.8	29.1	18.2	18.7	22.1	22.6	25.7
Other[b]	62.1	64.1	72.3	71.1	66.1	65.8	54.5
LNG Storage	4.1	2.6	1.3	0.2	2.0	1.7	5.0
Other Storage	2.6	1.4	2.6	4.6	3.2	1.3	2.2
LNG Ships	a	0.0	0.0	0.0	0.0	0.0	a
Transmission	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	77.6	68.7	70.4	79.6	77.3	72.5	73.2
Compressor Stations	16.4	26.0	20.1	13.8	18.8	21.4	20.6
Other	6.0	5.2	9.6	6.6	3.9	6.1	6.2
Distribution	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	88.1	88.7	86.2	85.8	85.8	87.9	87.5
Compressor Stations	a	1.4	4.1	4.5	3.9	2.6	3.9
Other	11.9	9.9	9.7	9.7	10.3	9.5	8.6

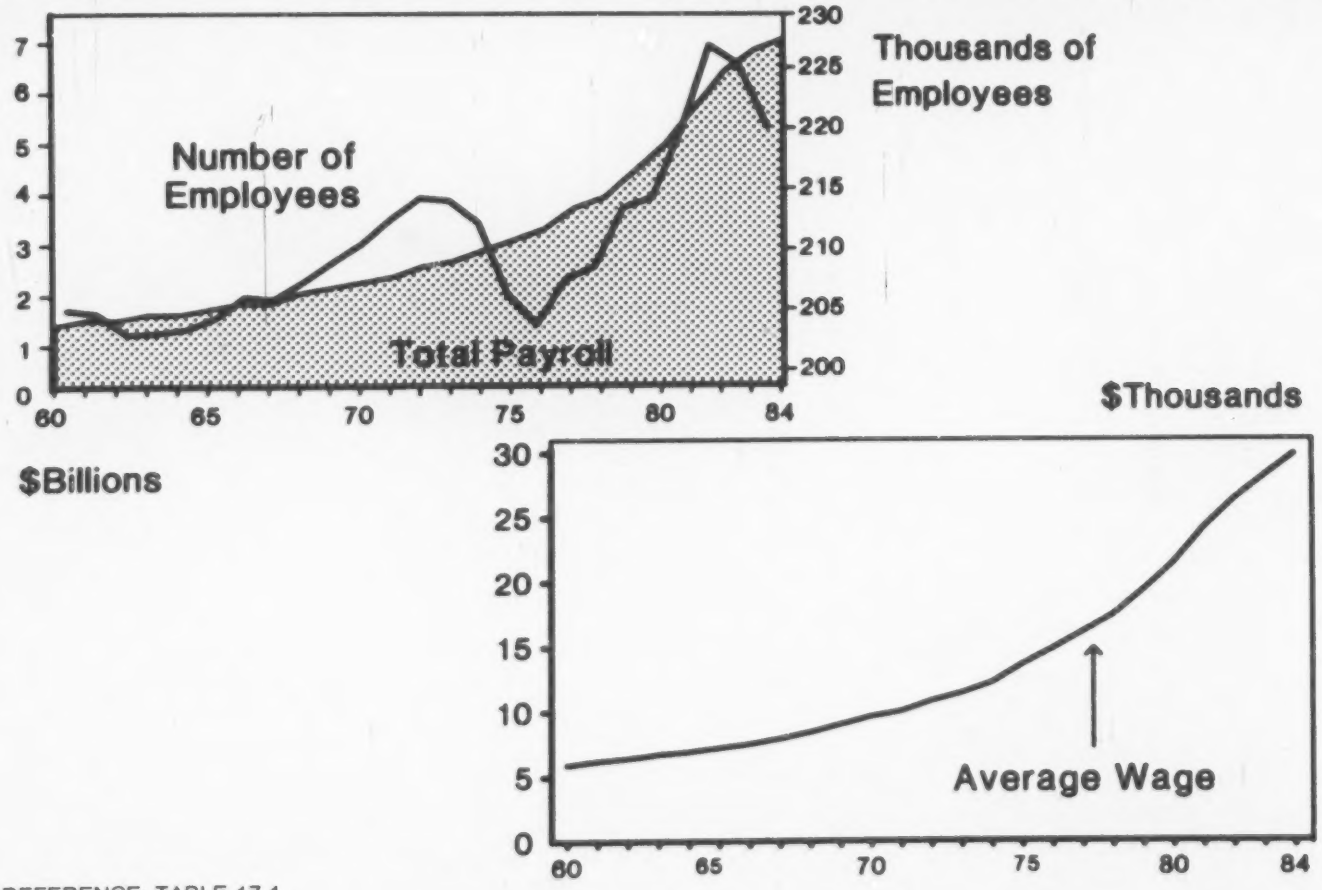
a. Less than 0.1 percent.
b. Includes gathering.

SECTION 17
PERSONNEL DATA

	1984	% Change 84/83
Gas Utility Employees		
(Thousands)		
Total	221.2	−2.3
Distribution	46.2	+1.0
Transmission	47.2	+0.8
Integrated	65.7	−6.3
Combination	49.7	−3.1
Municipals	12.3	+0.3

CHART 17-1

GAS UTILITY INDUSTRY PAYROLL, EMPLOYEES AND AVERAGE WAGE



REFERENCE: TABLE 17-1

PERSONNEL DATA

TABLE 17-1
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL, 1960–1984

Year	Average Number of Employees (Thousands)	Total Payroll (Thousands)	Average Wage per Employee
1960	206.4	$1,214,565	$ 5,880
1961	206.1	1,268,437	6,150
1962	204.4	1,316,057	6,440
1963	204.5	1,377,729	6,740
1964	204.8	1,420,754	6,940
1965	205.7	1,480,397	7,200
1966	207.4	1,556,577	7,500
1967	207.2	1,640,397	7,920
1968	208.6	1,759,784	8,440
1969	210.2	1,890,490	8,990
1970	211.7	2,021,197	9,550
1971	213.7	2,142,892	10,028
1972	215.4	2,321,932	10,780
1973	215.2	2,449,075	11,381
1974	213.4	2,606,903	12,216
1975	207.6	2,817,150	13,570
1976	205.1	3,044,605	14,844
1977	208.8	3,371,856	16,149
1978	209.8	3,647,057	17,383
1979	214.6	4,134,270	19,265
1980	215.4	4,612,791	21,415
1981	220.9	5,313,445	24,057
1982	227.8	5,998,666	26,342
1983[R]	226.3	6,365,305	28,128
1984	221.2	6,591,356	29,800

R — Revised.

TABLE 17-2
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL BY TYPE OF PAYROLL AND TYPE OF COMPANY, 1960–1984

(Thousands)

	1960	1965	1970	1975	1980	1982	1983[R]	1984
Total								
Employees	206.4	205.7	211.7	207.6	215.4	227.8	226.3	221.2
Payroll—Total	$1,214,565	$1,480,397	$2,021,197	$2,817,150	$4,612,791	$5,998,666	$6,365,305	$6,591,356
Operating	914,438	1,146,226	1,606,321	2,292,448	3,652,941	4,732,216	5,055,875	5,292,902
Construction	209,082	262,792	325,546	380,835	627,706	811,684	856,297	890,046
Miscellaneous	62,045	71,379	89,330	143,867	332,144	454,766	453,133	408,408
Investor Owned—Total								
Employees	•	•	•	196.3	202.7	215.7	214.0	208.9
Payroll—Total	•	•	•	$2,675,092	$4,379,653	$5,726,541	$6,073,173	$6,274,851
Operating	•	•	•	2,184,446	3,463,437	4,494,466	4,813,325	5,016,924
Construction	•	•	•	357,221	594,326	786,476	817,700	862,091
Miscellaneous	•	•	•	133,425	321,890	445,599	442,148	395,836
Distribution								
Employees	•	•	•	51.3	52.1	41.7	45.8	46.2
Payroll—Total	•	•	•	$697,552	$1,040,436	$ 956,275	$1,135,716	$1,241,732
Operating	•	•	•	567,947	831,076	787,379	936,005	1,024,387
Construction	•	•	•	98,257	152,964	134,360	154,136	166,118
Miscellaneous	•	•	•	31,348	56,396	34,536	45,575	51,227
Transmission								
Employees	31.4	29.6	32.4	37.2	45.2	48.4	46.8	47.2
Payroll—Total	$199,701	$228,493	$331,955	$574,275	$1,178,706	$1,543,492	$1,613,172	$1,652,837
Operating	166,064	187,521	266,685	470,418	873,199	1,167,527	1,216,066	1,272,709
Construction	21,955	30,650	44,869	53,832	108,974	133,572	137,290	149,100
Miscellaneous	11,682	10,322	20,401	50,025	196,533	242,393	259,816	231,028
Integrated								
Employees	•	•	•	55.4	53.2	74.1	70.1	65.7
Payroll—Total	•	•	•	$676,967	$1,061,520	$1,773,596	$1,776,262	$1,800,005
Operating	•	•	•	548,291	873,837	1,413,718	1,460,586	1,497,310
Construction	•	•	•	91,439	138,062	214,921	201,600	211,774
Miscellaneous	•	•	•	37,237	49,621	144,957	114,076	90,921
Combination								
Employees	•	•	•	52.4	52.2	51.5	51.3	49.7
Payroll—Total	•	•	•	$726,298	$1,098,991	$1,453,178	$1,548,023	$1,580,277
Operating	•	•	•	597,790	885,325	1,125,842	1,200,668	1,222,518
Construction	•	•	•	113,693	194,326	303,623	324,674	335,099
Miscellaneous	•	•	•	14,815	19,340	23,713	22,681	22,660

• Not available.

R—Revised.

Note: Data by company type not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 17-3
EMPLOYEE ACCIDENT INCIDENT AND SEVERITY RATES OF SELECTED INDUSTRIES, 1983[a]

	Rate	
	Incident	Severity
Gas Utilities[b]	**2.71**	**16.24**
All Industries	**2.20**	**18.64**
Agricultural Chemicals	1.13	18.58
Aircraft	.56	17.86
Air Transportation	5.23	14.91
Bituminous Coal	2.28	21.49
Cement	1.79	25.70
Chemical	.53	22.64
Communications	1.15	19.13
Construction	3.88	17.27
Electric, Electronic Equipment	.96	17.71
Electric Service	1.57	16.56
Fabricated Metal Products	2.10	19.05
Food	3.31	19.64
Furniture and Fixtures	1.61	14.91
General Government	5.72	15.56
Iron and Steel Foundries	1.45	22.76
Leather	1.97	18.78
Lumber and Wood Products	4.88	23.57
Machinery, excluding Electrical	1.54	19.48
Meat Products	4.11	18.25
Metal Mining	2.92	34.59
Motor Vehicles	.99	20.20
Nonferrous Rolling, Drawing	2.20	25.00
Nonmetallic Minerals	2.12	39.15
Oil and Gas Extraction	.94	26.60
Paper	2.23	24.66
Petroleum and Coal Products	.71	22.54
Pipeline Transportation	.92	20.65
Primary Nonferrous Metals	1.54	25.97
Printing and Publishing	2.57	20.62
Railroad Equipment	3.51	35.90
Railroad Transportation	2.10	28.57
Rubber and Plastics	2.13	22.07
Services	2.86	12.94
Ship and Boat Building	5.09	10.41
Steel	1.52	32.24
Stone, Clay and Glass	3.20	24.69
Textile	.67	28.36
Transit	7.96	13.94
Trucking	5.78	20.42
Water Transportation	3.04	38.82
Wholesale and Retail Trade	1.75	16.00

a. Incident rate is the number of disabling injuries per 100 full-time employees. Severity rate is average lost workdays per injury.
b. Gas figures derived from National Safety Council data.
Source: National Safety Council, *Work Injury and Illness Rates*, 1984.

TABLE 17-4
DEATH RATES OF WORKERS, BY MAJOR INDUSTRIES, 1983

	Deaths	
	Total	Per 100,000 Workers
All Industries	**11,300**	**11**
Agriculture	1,800	52
Construction	2,000	37
Government	1,500	10
Manufacturing	1,200	6
Mining, Quarrying, Oil and Gas Wells	500	50
Service	1,800	7
Trade	1,200	5
Transportation and Public Utilities	1,300	25
Gas*	7	2.75

*Included in Transportation and Public Utilities. Data derived from A.G.A. *Report of Occupational Injuries and Illnesses in the Gas Utility and Transmission Industry in the United States*, and does not represent total industry.
Source: National Safety Council; *Accident Facts*, 1984; gas figures derived from A.G.A. data.

TABLE 17-5
EMPLOYEE DISABLING INJURY RATES, BY TYPE OF GAS UTILITY, 1960-1984

Z16.1 DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies[a]	
	Reporting Companies		Rate[b]		Rate		Rate		Rate	
Year	Number	Average Employees	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]
1960	554	195,591	7.01	563	7.45	616	5.83	332	e	e
1965	625	198,815	5.69	402	5.93	314	4.34	753	e	e
1966	674	200,600	5.85	623	6.10	451	4.55	1,382	e	e
1967	642	202,427	5.69	454	6.07	376	4.32	814	e	e
1968	652	199,442	6.06	533	6.48	478	4.25	799	e	e
1969	703	204,771	6.16	525	6.54	500	4.37	589	e	e
1970	719	200,493	6.34	548	6.66	522	5.02	686	e	e
1971	833	210,589	7.15	473	7.48	444	5.70	634	e	e
1972	736	205,371	8.38	535	8.98	495	5.88	762	e	e
1973	708	207,423	8.18	547	8.77[f]	373[f]	5.67	1,287	e	e
1974	644	208,283	9.08	357	9.75[g]	362[g]	6.12	333	e	e
1975	515	193,957	9.27	570	9.99[g]	518[g]	6.37	785	e	e
1976	407	153,538	11.17	365	12.87[g]	403[g]	5.31	236	e	e

OSHA DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies	
	Reporting Companies		Rate		Rate		Rate		Rate	
Year	Number	Average Employees	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]
1976	411	223,240	2.38	20.00	3.27	18.78	1.08	39.24	1.96	19.63
1977	433	243,773	2.46	18.01	3.31	15.86	1.09	20.63	2.00	20.54
1978	423	236,661	2.46	17.11	3.41	14.86	1.10	22.51	2.10	18.90
1979	443	256,797	2.52	16.76	3.57	15.01	1.16	24.71	1.97	17.81
1980	453	262,173	2.62	18.20	3.45	14.28	1.15	32.17	2.26	21.34
1981	437	278,402	2.52	25.09	3.43	17.08	1.09	26.34	2.17	37.53
1982	424	275,725	2.33	18.36	3.39	13.63	1.15	23.10	1.90	24.30
1983	431	272,236	2.33	18.02	3.44	13.91	1.09	20.55	1.82	24.66
1984	415	254,765	2.52	16.01	3.67	13.20	1.02	19.60	1.91	21.11

a. Included in "Natural Gas Distribution" and "Integrated Companies" under Z16.1 data.
b. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
c. Frequency Rate is number of disabling injuries per million man-hours worked for each injury resulting in a minimum of one day's loss of time.
d. Severity Rate is number of days lost due to disabling injuries, per million man-hours worked.
e. Not available under Z16.1 data.
f. Includes "Manufactured and Mixed Gas."
g. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
h. Incident Rate is total injuries per 100 full-time employees.
i. Severity Rate is average lost workdays per injury.

NOTE: Companies are now required to report under the Occupational Safety and Health Act (OSHA) instead of ANST Standard Z16.1.
Source: A.G.A. *Disabling Injury Experience*, 1984.

APPENDIX A
GLOSSARY

(This is an abbreviated list of gas utility industry definitions. A complete list is contained in the *Glossary for the Gas Industry*).

Accident Frequency Rate: See Injury Frequency Rate, Disabling.

Accident Incident Rate: See Injury Incident Rate.

Accident Severity Rate: See Injury Severity Rate, Disabling.

Additions (To Utility Plant):

Gross Additions: Cost of construction, generally including overhead and allowance for funds used during construction (interest during construction), cost of land, land rights, and mineral interests, gas capitalized in underground storage, used facilities acquired, and the purchase cost of an acquired operating unit or system of utility plant. See Construction Expenditures.

Net Additions: Gross additions less retirements and adjustments of utility plant. It is the net change in utility plant between two dates.

Anthracite: A hard coal containing little volatile matter, low ash and generally having a heating value of 11,000–15,000 Btu/lb.

Associated Natural Gas: See Gas, Natural.

Associated Number of Customers: See Customers, Average Number of.

Average Revenue Per Unit of Gas Sales (By Class of Service): Revenue from the sale of gas to a class of service, exclusive of forfeited discounts and penalties, divided by the corresponding number of units sold. Units may be therms, Btu's or cubic feet.

Barrel (Oil): A volumetric unit of measurement equivalent to 42 U.S. standard gallons.

Bcf: 1,000,000,000 cubic feet; Billion cubic feet.

Bituminous Coal: Ranking of soft coal generally having a heating value of 11,000–14,000 Btu/lb., high in volatile matter and ash.

Blue Gas: See Water Gas.

Boiler Fuel Gas: Natural gas used as a fuel for the generation of steam (or hot water).

Bottled Gas: In the industry, liquefied petroleum gas contained under moderate pressure in cylinders, sometimes referred to as bottles. Usually propane and/or butane.

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British Thermal Unit (Btu): The quantity of heat that must be added to one pound of water to raise its temperature one degree Fahrenheit from 58.5 to 59.5 degrees Fahrenheit under standard pressure of 30 inches of mercury.

By-Products (Residuals): Secondary products which are obtained from the processing of a raw material and have commercial value. They may be the residues of the gas production process, such as coke, tar, and ammonia, or they may be the result of further processing of such residues, such as ammonium sulphate.

Capacity, Effective: The maximum load which a machine, apparatus, device, plant or system is capable of carrying under existing service conditions.

Carbon Black: Almost pure amorphous carbon consisting of extremely fine particles, usually produced from gaseous or liquid hydrocarbons by controlled combustion with a restricted air supply or by thermal decomposition.

Casinghead Gas: Unprocessed natural gas containing gasoline vapors produced from a reservoir containing oil.

City Gate (Town Border Station): See Gate Station.

Class of Service: Defines the type of customer. The common classes of service applied to ultimate consumers, and considerably more completely described in the A.G.A. publication "Definitions of a Gas Customer and Classes of Service for Industry Reporting Purposes" are:

1. **Residential Service**
   Covers service to customers for domestic purposes (single, multifamily or mobile homes, etc.). In residential service, the number of housing units within a structure determines the customer classification.
2. **Commercial Service**
   Covers service to customers engaged in wholesale or retail trade, agriculture, communications, finance, fisheries, forestry, government, insurance, real estate, transportation, etc., and to customers not directly involved in other classes of service.
3. **Industrial Service**
   Covers service to customers engaged primarily in a process which either involves the extraction of raw materials from the earth, or a change of raw or unfinished materials into another form or product.
4. **Other Services**
   Service to municipalities or divisions (agencies) of State or Federal Governments under special contracts or agreements or service classifications, which are applicable only to public authorities using gas for general or institutional purposes. (Exclude sales properly included under items 2 or 3 above, such as manufacturing arsenals or publicly-owned power systems).
5. **Sales for Resale** (Uniform System of Accounts, 483)
   Service to other utility companies, governmental agencies (municipal, county, state or federal), rural cooperatives, etc., for distribution and resale to ultimate customers. Service to other utilities for use by them and not for distribution and resale, is to be classified as residential, commercial, or industrial, depending upon the primary business or economic activity.

Coal Gas: Manufactured gas made by distillation or carbonization of coal in a closed coal gas retort, coke oven, or other vessel.

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Combination Gas Utility: Utility which supplies both gas and some other utility service (electricity, water, etc.). For purposes of A.G.A. statistics, a combination utility derives at least 5 percent but less than 95 percent of its total sales revenues from gas operations. See Appendix C for a partial list of combination companies.

Commercial Service: See Class of Service.

Communities (Served): A community is a contiguous built-up area, incorporated or unincorporated, commonly recognized as a separate entity. Any incorporated area and its adjacent built-up unincorporated area may be counted as only one community.

Compressor Horsepower: See Horsepower, Compressor.

Compressor Station: Any permanent combination of facilities which supplies the energy to move gas at increased pressure from fields, in transmission lines or into storage. For reporting to A.G.A. include field (other than temporary) line, and storage compressor stations of producing and transmission companies; distribution companies should include underground storage compressor stations and stations used for transporting gas between local distribution systems but not booster or pumping stations used within a local distribution system.

Condensate: The liquid resulting when a vapor is subjected to cooling and/or pressure reduction. Also, liquid hydrocarbons condensed from gas and oil wells. Compare Liquids, under Gas, Natural.

Construction Expenditures: Cost of construction, including overheads and allowance for funds used during construction, for additions to, renewals, and replacements of plant facilities, but excluding the purchase cost of an acquired operating unit or system of utility plant, accounting transfers and adjustments to utility plant, and cost to remove plant facilities from service.

Conversion to Natural Gas: Changing the gas service to ultimate customers from a fuel other than natural gas to natural gas, including adjustment of consumers' appliances to perform satisfactorily with natural gas. Natural gas does not necessarily mean straight natural gas; stabilizing the heat content of the sendout gas by diluent gases or enriching gases is not considered to change the basic character of natural gas. For the purpose of uniform reporting a company should be considered a natural gas company when 95 percent of the system has been converted.

Cubic Foot: The most common unit of measurement of gas volume. It is the amount of gas required to fill a volume of one cubic foot under stated conditions of temperature, pressure, and water vapor.

Current Gas: See Storage, Underground.

Cushion Gas: See Base Gas under Storage, Underground.

Customer: An individual, firm or organization which purchases service at one location under one rate classification, contract, or rate schedule. If service is supplied at more than one location or under more than one rate schedule, each location and rate schedule shall be counted as a separate customer unless the consumption of the several locations is combined before billing and billed on one rate schedule.

Customers, Average Number of: The average number of customers is determined by summing the customers for each of the periods involved and dividing by the number of periods. See Customer.

Customers, End of Year: The number of customers at December (or the last month of a fiscal year) including all billing cycles. See Customers, Average Number of.

Degree Day, Heating: A measure of the coldness of the weather experienced, based on the extent to which the daily mean temperature falls below a reference temperature, usually 65°F. For example, on a day when the mean outdoor dry-bulb temperature is 35°F., there would be 30 degree days experienced. A daily mean temperature usually represents the sum of the high and low readings divided by two.

Demand: The rate at which gas is delivered to or by a system, part of a system, or a piece of equipment, expressed in cubic feet or therms or multiples thereof, for a designated period of time called the demand interval. Compare Load.

Design Day: A 24-hour period of demand which is used as a basis for planning gas capacity requirements.

Design Day Availability: The amount of each type of gas arranged to be available on the design day and the maximum combination of such supplies. (In the case of purchased natural gas, the maximum day allocation, maximum day contract quantity, or FERC authorization).

Design Day Temperature: The mean temperature assumed for the Design Day.

Dissolved Natural Gas: See Gas, Natural.

Distribution Company, Gas: Company which obtains the major portion of its gas sales revenues from the operation of a retail gas distribution system, and which operates no transmission system other than incidental connections within its own system or to the system of another company. For purposes of A.G.A. statistics, a distribution company obtains at least 90 percent of its gas sales revenues from sales to ultimate customers *and* classifies at least 90 percent of mains (other than service pipe) as distribution. Compare Integrated Company, Gas; Transmission Company, Gas. See Appendix C for a partial list of Distribution Companies.

Distribution Mains: See System Type.

Distribution System, Gas: See System Type.

Dry Natural Gas: See Gas, Natural.

Enriching: Increasing the heat content of a gas by mixing with it a gas of higher Btu content.

Exchange Gas: Gas that is received from (or delivered to) another party in exchange for gas delivered to (or received from) such other party.

Extraneous Gas: See Storage, Underground.

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Field Pipeline: See System Type.

Firm Service: Service offered to customers (regardless of Class of Services) under schedules or contracts which anticipate no interruptions. The period of service may be for only a specified part of the year as in Off-Peak Service. Certain firm service contracts may contain clauses which permit unexpected interruption in case the supply to residential customers is threatened during an emergency. Compare Interruptible Service; and Off-Peak Service.

Foreign Gas: See Storage, Underground.

Gallon: A unit of liquid measure. The U.S. gallon contains 231 cubic inches or 8.3359 pounds avoirdupois of distilled water at its maximum density and with the barometer at 30 inches.

Gas, Dry: See Gas, Natural.

Gas, Liquefied Petroleum (LPG): A gas containing certain specific hydrocarbons which are gaseous under normal atmospheric conditions, but can be liquefied under moderate pressure at normal temperatures. Propane and butane are the principal examples.

Gas, Manufactured: A gas obtained by destructive distillation of coal, or by the thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke or catalyst beds. Examples are coal gases, coke oven gases, producer gas, blast furnace gas, blue (water) gas, carbureted water gas. Btu content varies widely.

Gas, Natural: A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

Associated: Free natural gas in immediate contact, but not in solution with crude oil in the reservoir.

Dissolved: Natural gas in solution in crude oil in the reservoir.

Dry: Gas whose water content has been reduced by a dehydration process. Gas containing little or no hydrocarbons commercially recoverable as liquid product. Specified small quantities of liquids are permitted by varying statutory definition in certain states.

Liquefied (LNG): Natural gas which has been liquefied by reducing its temperature to minus 260°F at atmospheric pressure. It remains a liquid at −116°F and 673 psig. In volume it occupies 1/600 of that of the vapor.

Liquids: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures, but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gases fall in this category.

Non-Associated: Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Sour: Gas found in its natural state, containing such amount of compounds of sulphur as to make it impractical to use, without purifying, because of its corrosive effect on piping and equipment.

Substitute: A gas manufactured from carbonaceous material whose characteristics are substantially interchangeable with natural gas. The resultant gas is composed primarily of methane. At this writing, SNG feedstocks are the light hydrocarbons, propane, butane and the naphthas. Development is underway of processes for production from heavier feedstocks, coal, peat and solid wastes.

Sweet: Gas found in its natural state, containing such small amount of compounds of sulphur that it can be used without purifying, with no deleterious effect on piping and equipment.

Wet: Wet natural gas is unprocessed natural gas or partially processed natural gas, produced from strata containing condensable hydrocarbons. The term is subject to varying legal definitions as specified by certain state statutes.

Gas, Oil: A gas resulting from the thermal decomposition of petroleum oils, composed mainly of volatile hydrocarbons and hydrogen. The true heating value of oil gas may vary between 800 and 1600 Btu per cubic foot depending on the operating conditions and feedstock properties.

Gas, Substitute Natural (SNG): See Gas, Natural.

Gas Transported for Others: That volume of gas owned by another company received into and transported through any part of the transmission system under a transportation agreement.

Gate Station: Generally, a location at which gas changes ownership, from one party to another, neither of which is the ultimate consumer. It should be noted, however, that the gas may change from one system to another at this point without changing ownership. Also referred to as city gate station, town border station or delivery point.

Gathering Pipeline: See System Type.

Heating Value: The amount of heat produced by the complete combustion of a unit quantity of fuel. The gross or higher heating value is that which is obtained when all of the products of combustion are cooled to the temperature existing before combustion, the water vapor formed during combustion is condensed, and all the necessary corrections have been made. The net or lower heating value is obtained by subtracting the latent heat of vaporization of the water vapor formed by the combustion of the hydrogen in the fuel, from the gross or higher heating value.

Holder, Gas: A gas-tight receptacle or container in which gas is stored for future use. (1) at approximately constant pressure (low pressure containers) in which case the volume of the container changes; and (2) in containers of constant volume (usually high pressure containers) in which case the quantity of gas stored varies with the pressure.

Holding Company: A gas holding company is a corporation that is formed for the purpose of owning stock in other gas companies.

Horsepower, Compressor: The horsepower rating on the nameplate.

Horsepower, Mechanical: A unit of power numerically equal to a rate of 33,000 foot-pounds of work per minute or 550 foot-pounds per second.

Hydrocarbon: A chemical compound composed solely of hydrogen and carbon. The compounds having a small number of carbon and hydrogen atoms in their molecule are usually gaseous; those with a larger number of atoms are liquid and the compounds with the largest number of atoms are solid.

Industrial Service: See Class of Service.

Injury Frequency Rate, Disabling: Number of disabling injuries per million man-hours worked. Such injuries include disabilities and fatalities arising out of and occurring during the course of employment. A disabling injury is one which renders the employee unable to return to work on one or more days after the injury.

Injury Incident Rate: Number of injuries per 100 full-time employees.

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Injury Severity Rate, Disabling: Number of days lost due to disabling per million manhours worked, including appropriate time charges according to a predetermined schedule for permanent disability cases and/or fatalities. Subsequent to 1976, severity rate is average lost workdays per injury.

Integrated Company, Gas: A company which obtains a significant portion of its gas sales revenues from the operations of both a retail gas distribution system and gas transmission system. For purposes of A.G.A. statistics, an integrated company obtains less than 90 percent but more than 10 percent of its gas sales revenues from either its retail or transmission operations or does not meet the classification of mains established for distribution or transmission companies. Compare Distribution Company, Gas; Transmission Company, Gas. See Appendix C for a partial list of Integrated Companies.

Interruptible Service: Low priority service offered to customers under schedules or contracts which anticipate and permit interruption on short notice, generally in peak-load seasons, by reason of the claim of firm service customers and higher priority users. Unlike Off-Peak Service, gas is available at any time of the year if the supply is sufficient.

Line Pack, Gas Delivered from: That volume of gas delivered to the markets supplied by the net change in pressure in the regular system of mains, transmission and/or distribution. For example, the change in the content of a pipeline brought about by the deviation from steady flow condition.

Liquefied Natural Gas (LNG): See Gas, Natural.

Liquefied Petroleum Gas (LPG): See Gas, Liquefied Petroleum.

Load: The amount of gas delivered or required at any specified point or points on a system; load originates primarily at the gas consuming equipment of the customers. Also, to load a pressure regulator is to set the regulator to maintain a given pressure as the rate of gas flow through the regulator varies. Compare Demand.

Local Storage: See Storage, Local.

Mcf: 1,000 cubic feet; Thousand cubic feet.

MMBtu: 1,000,000 Btu; Million Btu.

MMcf: 1,000,000 cubic feet; Million cubic feet.

Main, Gas: A distribution line that serves as a common source of supply for one or more than one gas service line.

Distribution Mains: See System Type.

Field and Gathering Pipeline: See System Type.

Transmission Pipeline: See System Type.

Manufactured Gas: See Gas, Manufactured.

Marketable Natural Gas: Raw gas from which certain hydrocarbons and non-hydrocarbon compounds have been removed by processing. Marketable natural gas is often referred to as pipeline gas, residue gas, or sales gas.

Maximum Day:
Allocation: See Design Day Availability.
Sendout: See Sendout, Maximum Day.

Minimum Day: See Sendout, Minimum Day.

Naphtha: Any of various volatile, often flammable liquid hydrocarbon mixtures used chiefly as solvents and diluents and as raw materials for conversion to gasoline and substitute natural gas (SNG).

Native Base Gas: See Storage, Underground.

Natural Gas: See Gas, Natural.

Natural Gas, Associated: See Gas, Natural.

Natural Gas, Dissolved: See Gas, Natural.

Natural Gas, Dry: See Gas, Natural.

Natural Gas, Liquefied: See Gas, Natural.

Natural Gas Liquids: See Gas, Natural.

Natural Gas, Non-Associated: See Gas, Natural.

Natural Gas Reserves: See Reserves.

Natural Gas, Sour: See Gas, Natural.

Natural Gas, Sweet: See Gas, Natural.

Natural Gas, Wet: See Gas, Natural.

Natural Gasoline: Liquid removed from natural gas by absorption or refrigeration and containing hydrocarbons heavier than butane.

Off-Peak Service: Service made available on special schedules or contracts but only for a specified part of the year during the off-peak season. Compare Interruptible Service.

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Oil Gas: See Gas, Oil.

Oil, Heavy: Heavy, thick and viscous oils. Usually refinery residuals commonly specified as grades 5 and 6.

Oil, Light: Generally, all oils lighter than residual fuel oils No. 5 and No. 6. Oils that have a low specific gravity, usually products of controlled distillation of crude oil but also including by-product benzol and toluol.

Peak Day: The 24-hour day period of greatest total gas sendout. Compare Design Day.

Peak Shaving: Supplying fuel gas for distribution system from an auxiliary source (of limited supply and higher cost) during periods of maximum demand, when the primary source is not adequate.

Pipeline: All parts of those physical facilities through which gas is moved in transportation, including pipe, valves and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders and fabricated assemblies. See System Type.

Pressure, Absolute (psia): Pressure above that of a perfect vacuum. It is the sum of gauge pressure and atmospheric pressure.

Pressure, Gauge (psig): Pounds per square inch above atmospheric pressure.

Producer Gas (Also, Manufactured Gas): A combustible gas made in a furnace or apparatus by circulating air or a mixture of air and steam through a layer of incandescent material consisting chiefly of carbon monoxide, hydrogen and nitrogen.

Propane (C_3H_8): A gaseous member of the paraffin series of hydrocarbons, which when liquified under pressure is one of the components of liquefied petroleum (LP) gas. Contains approximately 2,500 Btu per cubic foot (at 60°F and 30″ mercury, and 91,740 Btu per gallon).

Recoverable Natural Gas Reserves: See Reserves, Recoverable Natural Gas.

Refinery Gas: See Gas, Oil.

Reforming: A chemical process using heat in presence of a catalyst to break down a substance into desired components, such as in the reforming of natural gas or light oils into lower Btu fuel gas.

Repressuring: Forcing gas, under pressure, into the oil reservoir in an attempt to increase the recovery of crude oil; also done with water.

Resale Service: See Class of Service, Sales for Resale.

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Reserves: Refers to the bank of natural resources, such as natural gas, natural gas liquids, petroleum, coal, lignite, and energy available from water power, and solar and geothermal energy.

Estimated Potential Natural Gas: Refers to an estimate of the ultimate finding of natural gas in a specified area, whether or not presently considered proved or recoverable.

Estimated Proved Natural Gas: An estimated quantity of natural gas which analysis of geologic and engineering data demonstrates with reasonable certainty to be recoverable in the future from known oil and gas reservoirs, under existing economic and operating conditions. Reservoirs that have demonstrated the ability to produce by either actual production or conclusive formation test are considered proved.

Saturation, Appliance or Customer: The number of specified appliances, or users, divided by the basic units or total potential of the universe involved, i.e., Gas Heating Saturation related to customers is the total number of customers with space heating divided by the total number of customers. Saturation should not be used alone but should be associated with customers, families, households, population or other qualifying terms indicating the universe referred to. For industry statistics, saturation based on customers served is used.

Sendout, Gas: Total gas produced, purchased (including exchange gas receipts), or net withdrawn from underground storage within a specified time interval, measured at the point(s) of production and/or purchase, and/or withdrawal, adjusted for changes in local storage quantity. It comprises gas sales, exchange deliveries, gas used by company and unaccounted for gas. Expressed in various units such as therms, Btu's, cubic feet, etc.

Sendout, Maximum Day: The greatest total gas sendout occurring in a specified 24-hour period. Compare Design Day; Peak Day.

Sendout, Minimum Day: The smallest actual total gas sendout occurring in a specified 24-hour period.

Service (Service Line, Service Pipe): The pipe which carries gas from the main to the customer's meter. Compare Class of Service.

Shrinkage, Natural Gas: The reduction is volume of wet natural gas due to the extraction of some of its constituents, such as hydrocarbon products, hydrogen sulfide, carbon dioxide, nitrogen, helium, and water vapor.

Storage, Buried Pipe (Bottle-Type Holder): A system of storage in especially designed high pressure pipe sections or bottles capable of storing natural gas at pressures near or equal to the pressure of maximum super-compressibility. Not storage in ordinary steel pipe.

Storage, Local: The storage facilities, other than underground storage, that are an integral part of a distribution system, i.e., on the distribution side of the city gate, whether for manufactured, mixed, natural, liquefied petroleum, or liquefied natural gases.

Storage Mains: Those mains used primarily for injection and withdrawal of gas to and from underground storage.

Storage, Underground: The utilization of subsurface facilities for storing gas which has been transferred from its original location for the primary purposes of load balancing. The facilities are usually natural geological reservoirs such as depleted oil or gas fields or waterbearing sands sealed on the top by an impermeable cap rock. The facilities also may be manmade or natural caverns.

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Aquifer Storage: The storage of gas underground in porous and permeable rock stratum, the pore space of which was originally filled with water and in which the stored gas is confined by suitable structure, permeability barriers and hydrostatic water pressure.

Base Gas (Also called cushion gas): The total volume of gas which will maintain the required rate of delivery during an output cycle.

Current Gas: The total volume of gas in a storage reservoir which is in excess of the base gas. Also called Working Gas.

Extraneous Gas: See Stored Gas, this section.

Foreign Gas: See Stored Gas, this section.

Native Gas: The total volume of gas indigenous to the storage reservoir.

Storage Reservoir: That part of the storage zone having a defined limit of porosity and/or permeability which can effectively accept, retain, and deliver gas.

Storage Well: A cased bore hole, extending from the surface into the storage zone, which is used primarily for gas input and/or output purposes.

Stored Gas: Gas physically injected into a storage reservoir.

Ultimate Reservoir Capacity: The total estimated volume of gas that could be contained in storage reservoir when it is developed to the maximum design pressure.

Working Gas: Gas in an underground storage field that is available for market. May also be called Current Gas.

Straight Gas Utility: Company which derives the major portion of its total sales revenues from gas operations. For purposes of A.G.A. statistics, a straight gas utility derives at least 95 percent of its total sales revenues from gas operations. See Combination Gas Utility.

Sub-bituminous Coal: Ranking of soft coal generally having a heating value of 8,300–13,000 Btu's/lb-high volatile matter and ash.

Substitute Natural Gas: See Gas, Natural.

System Type:

Distribution: Generally mains, services, and equipment which carry or control the supply of gas from the point of local supply to and including the sales meters. The system operates at various pressures as indicated below.

High Pressure: A system which operates at a pressure higher than the standard service pressure delivered to the customer; thus, a pressure regulator is required on each service to control pressure delivered to the customer. Sometimes this is referred to as medium pressure.

Low Pressure or Utilization Pressure: A system in which the gas pressure in the mains and service lines is substantially the same as that delivered to the customers' appliances; ordinarily a pressure regulator is not required on individual service lines.

Field and Gathering: A network of pipelines (mains) transporting natural gas from individual wells to compressor station, processing point, or main trunk pipeline.

Main: The network of distribution piping to which customers' service lines are attached. Generally large pipes are laid in principal streets with smaller laterals extending along side streets and connected at their ends to form a grid; sometimes laterals are brought to dead ends. Compare with Distribution, this section.

Transmission: Pipelines (Mains) installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers, or to one or more large volume customers, or a pipeline installed to interconnect sources of supply. In typical cases transmission lines differ from gas mains in that they operate at higher pressures, are longer, and the distance between connections is greater.

Tcf: 1,000,000,000,000 cubic feet; Trillion cubic feet.

Therm: A unit of heating value equivalent to 100,000 British thermal units (Btu).

Transmission Company, Gas: Company which obtains at least 90 per cent of its gas sales revenues from the operation of a gas transmission system and/or from main line sales to industrial customers. For purposes of A.G.A. statistics, a transmission company obtains at least 90 percent of its gas sales revenues from sales for resale and/or transportation of gas for others and/or main line sales to industrial customers *and* classifies at least 90 percent of mains (other than service pipe) as field and gathering, storage and/or transmission. Compare Distribution Company, Gas; Integrated Company, Gas. See Appendix C for a partial list of Transmission companies.

Transmission Pipeline: See System Type.

Transmission System: See System Type.

Ultimate Customer: The customer who purchases gas for consumption and not for resale purposes.

Ultimate Reservoir Capacity: See Storage, Underground.

Unaccounted for Gas: The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperature and/or pressure, other variants, particularly due to measurements being made at different times, and in cycle billings, an amount of gas supply used but not billed as of the end of a period. Compare Sendout, Gas.

Underground Storage: See Storage, Underground.

Water Gas (Blue Gas): Made by passing steam over hot coke, or other carbonaceous material; it consists of carbon monoxide and hydrogen with varying amounts of carbon dioxide and nitrogen. It burns with a blue flame.

Well, Wildcat: An exploratory well being drilled in unproven territory, that is, in a horizon from which there is no production in the general area.

Wet Natural Gas: See Gas, Natural.

Working Gas: See Storage, Underground.

APPENDIX B
CONVERSION TABLE

The following are some frequently used units of measure and natural gas equivalents in British thermal units (Btu). Read "=" as "contains" between volumes and energy units.
The national average Btu content per cubic foot is used. For state averages, see page 76.

1 Cubic Foot (cf) = 0.02832 Cubic Meters = 1,026.7 Btu
1 Therm = 100,000 Btu ≅ 25,200 Kilocalories ≅ 100 Cubic Feet
1 Mcf = 1,000 Cubic Feet = 28.32 Cubic Meters = 1,026,700 Btu
1 M Therm = 100,000,000 Btu ≅ 25,200,000 Kilocalories
1 MMcf = 1,000,000 Cubic Feet = 1,026,700,000 Btu

Conversion examples:
(1) To convert 2,325 MMcf to trillions of Btu:
(2,325 MMcf) (1,026,700,000 Btu/MMcf)
= 2,387,077,500,000 Btu
≅ 2.387 trillion Btu
(2) To convert 5,000 trillion Btu to millions of cubic feet:
(5,000 trillion Btu) (1 cf/1,026.7 Btu)
≅ 4.870 trillion cf (Tcf)
≅ 4,869,972 MMcf
(2) To convert 22,150 million therms to trillions of Btu:
(22,150 million therms) (100,000 Btu/therm)
= 2,215,000,000 million Btu
= 2,215 trillion Btu
(4) To convert the Btu content of 1 cubic foot at 15.05 psia to 14.73 psia:
(1,049 Btu/cf) (14.73 psia/15.05 psia)
≅ 1,026.7 Btu/cf

For comparative purposes, Btu contents of various energy sources other than natural gas are shown below.*

Fuel Oil (barrel)	
Distillate	5,825,000 Btu
Residual	6,287,000 Btu
Coal (short ton)	
Bituminous and lignite	21,698,000 Btu
Anthracite	22,540,000 Btu
Electricity (kilowatt-hour)	3,412 Btu
Natural gas liquids (barrel)	3,960,000 Btu

* Department of Energy, Energy Information Administration, *Monthly Energy Review*, March 1985.

APPENDIX C
COMPANY LISTINGS

Shown below are 100 selected companies, 25 for each company type, as used in the financial and other sections of this publication. These lists are *not* meant to be *comprehensive.* Inclusion on this list does not imply individual company data may be released.

Distribution

Alabama Gas Corporation
Berkshire Gas Company, The
Boston Gas Company
Chattanooga Gas Company
Columbia Gas of Kentucky, Inc.
Columbia Gas of Ohio, Inc.
Columbia Gas of Pennsylvania, Inc.
Commonwealth Gas Company
Elizabethtown Gas Company
ENTEX, Inc.
Gas Service Company, The
Great Falls Gas Company
Minnegasco, Inc.
Mississippi Valley Gas Company
North Central Public Service Company
North Shore Gas Company
Northwest Natural Gas Company
Peoples Gas System, Inc.
Providence Gas Company
Richmond Gas Corporation
Southern Connecticut Gas Company, The
Washington Gas Light Company
Washington Natural Gas Company
Wisconsin Gas Company
Wisconsin Natural Gas Company

Transmission

Alabama Tennessee Natural Gas Co.
Algonquin Gas Transmission Company
ANR Pipeline Company
Colorado Interstate Gas Company
Columbia Gas Transmission Corporation
Columbia Gulf Transmission Company
East Tennessee Natural Gas Company
El Paso Natural Gas Company
Houston Natural Gas Corporation
Midwestern Gas Transmission Company
Natural Gas Pipeline Co. of America
Northwest Central Pipeline Company
Northwest Pipeline Corporation
Pacific Gas Transmission Company
Pacific Lighting Gas Supply Company
Panhandle Eastern Pipe Line Company
Southern Natural Gas Company
Texas Eastern Transmission Corporation
Texas Gas Transmission Corporation
Transcontinental Gas Pipe Line Corp.
Transok Pipe Line Company
Transwestern Pipeline Company
Trunkline Gas Company
United Gas Pipeline Company
Western Slope Gas Company

Integrated

Arkansas Louisiana Gas Company
Arkansas Oklahoma Gas Corporation
Arkansas Western Gas Company
Associated Natural Gas Company
Corning Natural Gas Company
Equitable Gas Company
Intermountain Gas Company
InterNorth Incorporated
Kokomo Gas & Fuel Company
Lone Star Gas Company
Michigan Consolidated Gas Company
Michigan Gas Utilities Company
Mountain Fuel Supply Company
National Fuel Gas Company
North Carolina Natural Gas Company
North Penn Gas Company
Oklahoma Natural Gas Company
Peoples Natural Gas Co., The
Piedmont Natural Gas Company
South Jersey Gas Company
Southern California Gas Company
Southern Union Gas Company
Southwest Gas Corporation
United Cities Gas Company
Western Kentucky Gas Company

Combination

Baltimore Gas and Electric Company
Central Illinois Light Company
Cincinnati Gas and Electric Company
Consolidated Edison Co. of NY Inc.
Consumers Power Company
Dayton Power & Light Company
Florida Public Utilities Company
Illinois Power Company
Iowa Electric Light & Power Company
Iowa-Illinois Gas & Electric Company
Kansas Power & Light Company
Long Island Lighting Company
Louisville Gas & Electric Company
Madison Gas & Electric Company
Montana-Dakota Utilities Company
Montana Power Company
Niagara-Mohawk Power Corporation
Northern Indiana Public Service Company
Pacific Gas & Electric Company
Philadelphia Electric Company
Public Service Co. of Colorado
Public Service Electric & Gas Company
San Diego Gas & Electric Company
Virginia Electric & Power Company
Wisconsin Public Service Corporation

APPENDIX D
GAS REQUIREMENTS COMMITTEE, NATURAL GAS CONSUMPTION

The Gas Requirements Committee (GRC) is a subcommittee of the Gas Demand Committee, a board-level committee of the American Gas Association. The GRC has been publishing reports on gas consumption since 1964, and is considered one of the three major sources of comprehensive data on natural gas consumption. The Energy Information Agency (EIA) within the U.S. Department of Energy and the American Gas Association are the other two. The Statistics and Related Economics Committee of the A.G.A. has decided to include the GRC data on natural gas consumption in this edition as part of the effort to continually improve the usefulness of the data provided in *Gas Facts.*

Comparison of consumption figures published by the three above-mentioned sources for any given year would result in some discrepancies. Certainly one reasonable explanation is that the three groups use different methods in the collection and compilation of natural gas consumption data. The major differences are caused by varying definitions, sample sizes, and points of measurement.

The GRC measure of consumption is defined as adding together the end-use consumption of all gas users including company use, unaccounted for gas and field use on a national basis only. The EIA measure of consumption is defined as the sum of deliveries to consumers, lease and plant fuel, and pipeline fuel. The A.G.A. measure of consumption is restricted to sales to consumers that are made by gas utility companies *only* and, therefore, is a subset of total United States gas consumption.

It is not the intention of the Statistics and Related Economics Committee to reconcile the differences among the reported consumption data. Rather, the reader should be aware that three sources of data exist. If the reader wishes to further analyze the GRC or EIA consumption data, it is reported in the GRC *Future Gas Consumption in the United States* reports or the EIA *Natural Gas Annual* reports.

The subsequent pages excerpt the following information from GRC publications: United States gas consumption by state, region and class of service—1984, total commercial and industrial consumption by standard industrial classification—1984, and United States gas consumption by class of service, 1975–1984.

GAS FACTS

1984
UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(Millions of Cubic Feet)[a]

	Region and State	Firm			
		Residential	Commercial	Industrial	Electric Utilities
(1)	**United States Total**				
(2)	**Field Use**				
(3)	**Total Excluding Field Use**	**4,632,219**	**2,297,317**	**3,861,396**	**1,683,711**
(4)	**1. New England**	**146,182**	**74,184**	**31,076**	**169**
(5)	Connecticut	33,219	17,025	10,559	—
(6)	Maine	540	1,124	553	—
(7)	Massachusetts	91,530	45,809	16,317	169
(8)	New Hampshire	4,512	4,074	567	—
(9)	Rhode Island	15,025	5,210	3,010	—
(10)	Vermont	1,356	942	70	—
(11)	**2. Appalachian**	**1,395,794**	**599,597**	**617,242**	**2,569**
(12)	Delaware	7,316	3,575	4,518	42
(13)	District of Columbia	18,642	6,151	457	—
(14)	Kentucky	67,358	33,397	36,096	841
(15)	Maryland	77,272	15,879	31,027	29
(16)	New Jersey	158,086	82,711	39,295	—
(17)	New York	346,426	137,855	71,749	1,076
(18)	Ohio	353,981	156,518	192,510	347
(19)	Pennsylvania	272,781	121,013	180,514	234
(20)	Virginia	53,492	24,134	29,826	—
(21)	West Virginia	40,440	18,364	31,250	—
(22)	**3. Southeast**	**274,850**	**169,972**	**224,546**	**60,255**
(23)	Alabama	53,078	21,908	47,303	930
(24)	Florida	15,449	25,833	16,300	59,231
(25)	Georgia	96,985	44,718	28,826	—
(26)	North Carolina	33,836	25,264	61,555	93
(27)	South Carolina	28,561	12,498	18,580	1
(28)	Tennessee	46,941	39,751	51,982	—
(29)	**4. Great Lakes**	**1,095,380**	**532,861**	**627,675**	**9,368**
(30)	Illinois	482,419	229,819	253,174	3,715
(31)	Indiana	156,063	72,173	189,500	883
(32)	Michigan	343,158	161,554	150,718	4,727
(33)	Wisconsin	113,740	69,315	34,283	43
(34)	**5. Northern Plains**	**251,044**	**139,240**	**97,217**	**406**
(35)	Iowa	79,419	38,849	64,951	403
(36)	Minnesota	100,928	52,350	11,632	3
(37)	Nebraska	49,578	34,735	19,345	—
(38)	North Dakota	9,974	7,709	283	—
(39)	South Dakota	11,145	5,597	1,006	—
(40)	**6. Mid-Continent**	**301,033**	**133,197**	**151,283**	**255,402**
(41)	Kansas	85,409	35,375	37,511	17,007
(42)	Missouri	134,739	55,306	26,927	—
(43)	Oklahoma	80,885	42,516	86,845	238,395
(44)	**7. Gulf Coast**	**363,030**	**217,984**	**1,849,122**	**1,287,309**
(45)	Arkansas	43,238	23,441	76,711	31,432
(46)	Louisiana	69,309	34,058	603,169	203,805
(47)	Mississippi	28,130	18,357	65,401	51,150
(48)	Texas	222,353	142,128	1,103,841	1,000,922
(49)	**8. Rocky Mountain**	**172,626**	**108,224**	**25,955**	**1,807**
(50)	Colorado	90,137	63,015	16,118	1,807
(51)	Montana	18,419	13,366	1,682	—
(52)	Utah	51,135	21,461	5,316	—
(53)	Wyoming	12,935	10,382	2,839	—
(54)	**9. Pacific Southwest**	**561,923**	**253,058**	**113,786**	**53,932**
(55)	Arizona	29,260	26,730	31,417	18,674
(56)	California	493,152	194,259	59,708	8,690
(57)	Nevada	14,996	8,568	5,846	9,850
(58)	New Mexico	24,515	23,501	16,815	16,718
(59)	**10. Pacific Northwest**	**58,485**	**49,822**	**60,481**	**18**
(60)	Idaho	7,667	8,825	19,272	14
(61)	Oregon	20,204	16,997	13,540	—
(62)	Washington	30,614	24,000	27,669	4
(63)	**11. Pacific**	**11,872**	**19,178**	**63,013**	**12,476**
(64)	Alaska	11,287	16,902	63,013[b]	12,476
(65)	Hawaii	585	2,276	—	—

a. Btu content equals 1,000 Btu per cubic foot.
b. Firm industrial for Alaska estimated by using actual 1981 data from Energy Information Administration's *Natural Gas Annual.*

APPENDIX D

1984 (Continued)
UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(Millions of Cubic Feet)[a]

Commercial	Interruptible Industrial	Interruptible Electric Utilities	Other	Total Consumption	
				18,423,951	(1)
				1,084,000	(2)
291,848	**2,097,198**	**1,515,668**	**960,594**	**17,339,951**	(3)
16,567	**32,419**	**38,612**	**11,291**	**350,500**	(4)
8,288	10,520	2,300	896	82,807	(5)
—	228	—	113	2,558	(6)
5,065	17,109	32,241	8,746	216,986	(7)
—	925	80	274	10,432	(8)
2,679	1,914	3,715	1,132	32,685	(9)
535	1,723	276	130	5,032	(10)
63,386	**319,054**	**261,329**	**185,845**	**3,444,816**	(11)
217	3,685	—	5,853	25,206	(12)
5,541	161	—	442	31,394	(13)
551	17,234	1,021	20,584	177,082	(14)
7,818	27,679	79	6,059	165,842	(15)
6,523	46,417	96,235	9,334	438,601	(16)
22,753	34,399	160,376	35,195	809,829	(17)
2,484	119,150	120	5,748	830,858	(18)
9,083	55,220	239	54,500	693,584	(19)
8,379	10,176	3,137	8,419	137,563	(20)
37	4,933	122	39,711	134,857	(21)
37,633	**365,249**	**120,631**	**57,220**	**1,310,356**	(22)
2,980	68,594	90	14,561	209,444	(23)
9,362	62,203	119,507	5,023	312,908	(24)
14,356	122,742	603	11,092	319,322	(25)
1,251	19,519	50	6,114	147,682	(26)
4,673	39,626	381	5,325	109,645	(27)
5,011	52,565	—	15,105	211,355	(28)
25,763	**189,598**	**6,543**	**33,146**	**2,520,334**	(29)
430	47,126	3,716	11,685	1,032,084	(30)
1,190	37,466	—	9,335	466,610	(31)
13,108	30,939	803	9,501	714,508	(32)
11,035	74,067	2,024	2,625	307,132	(33)
57,548	**87,882**	**5,739**	**19,545**	**658,621**	(34)
7,228	28,645	1,469	12,900	233,864	(35)
37,048	39,740	2,967	1,979	246,647	(36)
7,966	16,232	1,294	4,457	133,607	(37)
2,582	1,100	9	674	22,331	(38)
2,724	2,165	—	(465)	22,172	(39)
33,296	**240,044**	**25,612**	**86,636**	**1,226,503**	(40)
18,129	105,310	18,621	50,693	368,055	(41)
12,097	37,013	3,610	6,814	276,506	(42)
3,070	97,721	3,381	29,129	581,942	(43)
4,758	**474,167**	**453,222**	**382,717**	**5,032,309**	(44)
4,572	12,307	2	18,078	209,781	(45)
177	124,189	99,363	133,996	1,268,066	(46)
—	7,730	113	33,197	204,078	(47)
9	329,941	353,744	197,446	3,350,384	(48)
17,316	**74,453**	**3,715**	**23,069**	**427,165**	(49)
9,744	16,169	3,677	11,685	212,352	(50)
331	8,657	38	2,183	44,676	(51)
6,532	29,136	—	3,670	117,250	(52)
709	20,491	—	5,531	52,887	(53)
22,933	**241,181**	**587,854**	**157,027**	**1,991,694**	(54)
—	—	—	15,985	122,066	(55)
22,933	241,181	587,854	92,037	1,699,814	(56)
—	—	—	989	40,249	(57)
—	—	—	48,016	129,565	(58)
10,108	**68,744**	**39**	**2,682**	**250,379**	(59)
46	713	—	176	36,713	(60)
626	27,100	—	1,078	79,545	(61)
9,436	40,931	39	1,428	134,121	(62)
2,540	**4,407**	**12,372**	**1,416**	**127,274**	(63)
2,298	4,407	12,372	1,307	124,062	(64)
242	—	—	109	3,212	(65)

1984
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(Millions of Cubic Feet)[a]

Group	Description	Region[b] 1	2	3	4
01–09	Agriculture, Forestry & Fishing	835	4,838	527	8,833
10–14	Mining	307	1,479	2,773	3,808
15–17	Construction	609	4,543	960	5,612
20	Food & Kindred Products	4,243	60,047	48,959	95,784
21	Tobacco Manufacturers	139	1,539	698	107
22	Textile Mill Products	2,400	10,150	60,175	1,922
23	Apparel & Other Textile Products	261	3,682	6,546	761
24	Lumber & Wood Products	192	4,096	5,937	3,427
25	Furniture & Fixtures	179	2,296	1,364	4,161
26	Paper & Allied Products	3,495	40,339	54,901	48,977
27	Printing & Publishing	784	5,462	1,115	8,804
28	Chemicals & Allied Products	2,157	125,921	97,405	85,274
29	Petroleum & Coal Products	342	39,129	16,750	31,605
30	Rubber & Misc. Plastics Products	1,081	18,899	12,054	13,922
31	Leather & Leather Products	77	1,384	584	3,451
32	Stone, Clay, Glass & Concrete Products	4,103	98,219	64,100	41,040
331–332	Primary Iron & Steel	2,571	205,471	22,682	209,650
333–339	Primary Nonferrous Metals	809	54,399	21,530	37,142
34	Fabricated Metal Products	5,534	45,582	10,221	38,975
35	Machinery, except Electrical	3,588	24,337	3,897	34,298
36	Electric & Electronic Equipment	3,007	23,811	6,139	18,026
37	Transportation Equipment	963	27,440	7,696	50,356
38	Instruments & Related Products	1,401	4,688	1,731	1,981
39	Other Manufacturing	2,647	40,536	5,514	27,025
40–48	Transportation	1,707	29,570	2,318	11,200
49	Utility Services other Than Electric Generation	4,874	12,776	1,524	18,033
50–51	Wholesale Trade	2,259	16,073	2,884	15,173
52–57,59	Retail Trade	5,890	36,369	6,038	34,225
58	Restaurants and Drinking Places	5,910	30,446	13,990	23,670
60–64,66,67	Finance & Insurance	1,062	6,357	654	5,107
65	Real Estate (Apartments)	12,420	85,954	8,230	36,542
70	Hotels & Other Lodging Places	1,212	13,043	3,364	11,189
72–79	Services	4,945	31,406	5,577	53,028
80	Health Services, Hospitals	6,858	53,039	19,687	46,888
81,83,84	Legal & Social Services	521	4,668	1,671	6,518
82	Education (Schools)	4,500	59,584	14,565	74,314
86,88,89	Membership Organization & Misc. Services	2,170	21,428	2,091	18,929
91–97	Public Administration	2,714	25,269	13,909	22,849
99	Non-Classifiable	1,078	6,563	1,701	1,286
	Not Classified by SIC or Unreported	54,402	318,447	244,939	222,005
	Total Commercial & Industrial	**154,246**	**1,599,279**	**797,400**	**1,375,897**

a. Btu content equals 1,000 Btu per cubic foot.
b. For region definition see previous table on page 208.

APPENDIX D

1984 (continued)
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION
BY STANDARD INDUSTRIAL CLASSIFICATION

(Millions of Cubic Feet)[a]

Region[b]								
5	6	7	8	9	10	11	Total	Group
10,944	10,857	29,074	2,174	17,596	960	—	86,638	01–09
612	10,389	23,642	7,711	11,343	4,382	—	66,446	10–14
1,067	1,143	2,823	1,520	2,036	344	50	20,707	15–17
29,768	15,196	34,582	7,734	50,582	22,901	—	369,796	20
—	—	207	—	1	—	—	2,690	21
54	305	1,815	31	3,549	33	—	80,434	22
64	8	1,247	49	649	248	—	13,515	23
5,289	6,799	6,318	266	2,475	7,225	—	42,024	24
490	99	3,612	61	999	82	—	13,343	25
2,713	3,296	65,139	3,266	21,838	34,546	—	278,510	26
514	173	7,163	168	2,150	161	—	26,494	27
31,346	144,952	838,679	18,951	31,687	15,637	—	1,392,009	28
749	33,713	372,018	19,386	90,730	9,598	—	614,020	29
646	4,426	13,018	1,715	3,441	178	—	69,380	30
122	104	51	171	303	8	—	6,255	31
4,932	26,462	35,514	5,436	41,890	4,654	—	326,350	32
943	969	2,317	14,229	5,679	2,935	—	467,446	331–332
5,715	7,130	69,919	5,072	35,205	9,127	—	246,048	333–339
1,914	3,874	11,515	718	11,849	1,190	—	131,372	34
3,604	310	2,595	1,486	4,332	897	—	79,344	35
1,254	3,213	3,671	799	5,852	280	—	66,052	36
661	6,737	6,427	1,038	8,770	5,147	—	115,235	37
168	—	313	1,432	1,130	43	—	12,887	38
2,859	1,970	14,043	530	1,329	4,656	—	100,909	39
2,309	9,496	2,492	5,008	5,977	1,299	—	71,376	40–48
1,768	10,851	11,416	579	9,319	1,240	—	72,380	49
2,286	988	1,724	2,099	5,675	1,200	—	50,361	50–51
16,476	3,565	17,752	7,575	10,050	1,788	130	139,358	52–57,59
2,945	2,517	3,438	2,921	23,363	2,355	371	111,926	58
1,122	681	734	993	2,279	267	10	19,266	60–64,66,67
5,949	5,633	2,979	18,314	8,493	2,460	719	187,693	65
2,227	1,443	3,931	2,801	14,799	981	1,377	56,367	70
3,737	2,413	2,326	4,963	22,500	2,623	4	133,522	72–79
6,026	23,842	7,075	4,571	21,446	3,399	129	192,960	80
836	1,084	1,228	706	3,239	420	10	20,901	81,83,84
8,261	8,783	6,946	9,170	24,236	4,533	335	215,227	82
3,289	196	369	2,126	6,419	1,089	—	58,106	86,88,89
1,897	6,672	7,284	6,473	17,955	2,492	47	107,561	91–97
21,313	35	—	13,591	16,766	140	9,238	71,711	99
195,018	197,496	930,635	50,315	83,028	37,637	76,718	2,410,640	
381,887	**557,820**	**2,546,031**	**225,948**	**630,958**	**189,155**	**89,138**	**8,547,749**	

UNITED STATES GAS CONSUMPTION BY CLASS OF SERVICE, 1975–1984

(Millions of Cubic Feet)[a]

Year	Firm				Interruptible				Total Excluding Field Use	Field Use	Total Consumption
	Residential	Commercial	Industrial	Electric Utilities	Commercial	Industrial	Electric Utilities	Other			
1975	4,981,448	2,415,713	5,116,697	2,025,981	271,223	1,935,675	1,024,480	1,173,759	18,944,976	1,426,000	20,370,976
1976	5,090,126	2,536,585	5,334,144	2,106,027	270,359	1,846,102	956,247	1,243,448	19,383,038	1,667,000	21,050,038
1977	4,909,373	2,463,206	5,019,752	2,017,471	222,735	1,651,440	998,913	1,167,724	18,450,614	1,694,000	20,144,614
1978	5,132,207	2,746,861	6,486,614	2,926,048	b	b	b	1,304,150	18,595,880	1,679,000	20,274,880
1979	5,144,003	2,770,674	6,973,202	3,274,967	b	b	b	1,233,424	19,396,270	1,530,000	20,926,270
1980	4,868,509	2,363,209	5,167,578	2,161,516	247,205	1,967,741	1,430,447	1,354,737	19,560,942	1,053,000	20,613,942
1981	4,654,258	2,240,388	5,026,609	2,142,754	249,760	2,001,333	1,632,357	1,350,019	19,297,478	953,000	20,250,478
1982	4,708,934	2,303,029	4,045,749	1,927,775	270,952	1,655,883	1,346,773	1,141,246	17,400,341	1,140,000	18,540,341
1983[R]	4,429,538	2,179,757	3,763,706	1,721,185	258,656	1,903,910	1,294,767	1,180,978	16,732,497	1,009,000	17,741,497
1984	4,632,219	2,297,317	3,861,396	1,683,711	291,848	2,097,198	1,515,668	960,594	17,339,951	1,084,000	18,423,951

a. Btu content equals 1,000 Btu per cubic foot.
b. In 1978 and 1979, firm and interruptible service were not measured individually; therefore all consumption is included under firm for each class of service.
R—Revised.

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